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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS,

AND PLACES OF GROWTH.

572 87

WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

ROYAL

Vol. I.

BY

JAMES SOWERBY, F.L.S.

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——"QUOS IPSA VOLENTIA RURA

SPONTE TULERE SUA."

TO THE

RIGHT HONOURABLE

GEORGE,

LORD VISCOUNT LEWISHAM, F. R. S. AND F. L. S.

THIS VOLUME

IS MOST RESPECTFULLY INSCRIBED

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HUMBLE SERVANT,

JAMES SOWERBY.

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PREFACE.

THE prevailing taste for botanical pursuits, and the encouragement afforded in this country to every work which tends to advance them, have given rise to the present undertaking, and make any apology for it unnecessary. It remains with the public to judge of the merit of the work, and to decide whether it should be prosecuted or not. It may not however be improper to say something of its intention and plan.

A knowledge of the plants of our own country is in many respects preferable to that of exotics, as it can be much more completely attained, and is on several accounts more directly useful. Nor are the humble productions of our fields and woods deficient in real beauty, elegance, or singularity of structure, in which respects some of them indeed vie with the most favourite exotics. Not to mention the indispensable necessity for those, who are occupied with the rural economy of any country, to be well acquainted with its native vegetables; the study of them, as a mere amusement, has this eminent advantage over exotic botany, that it doubles the pleasure of every journey or walk, and calls forth to healthy exercise the bodily as well as the mental powers; while persons who know no such pursuits either sacrifice their health to sedentary employments, or are content to submit, without an object, and without enjoyment, to toil and labour for exercise, and for exercise alone.

As this study then is so much to be recommended, and has of late indeed been so generally approved and pursued, it seems extraordinary that among the many merely descriptive works on British Plants, no successful attempt has has

hitherto been made to illustrate them by original figures on a cheap and compendious plan; more especially as the advantage of good figures, in promoting the knowledge of plants, is so generally allowed. It is true indeed that most of our native vegetables are already figured in some book or other, and those books are quoted by our systematic writers; but, not to mention the frequent mistakes in such citations, the study of English botany on this plan could not be attempted without a collection of all the books, however voluminous and expensive, that treat of European plants: so that, whatever might be thought of a very large and expensive work of figures of all the plants of Great Britain, it is hoped the present reasonable and commodious publication will by no means be considered as a burthen on the public.

To avoid that imputation as much as possible, the author has in his letter-press declined copying what others have said; and means in general only to refer to the most popular and useful descriptive and systematic books, as the Species Plantarum of Linnæus, and the different Floras of Hudson, Curtis, Lightfoot, Withering, Relhan, Ray, &c. He will spare no pains to have his botanical characters and synonyms accurate; and as he is so fortunate as to have access to the first sources of information, he hopes this part of his plan will be executed so as to deserve approbation, and also that in his remarks he may sometimes have an opportunity of presenting his readers with matter altogether new.

Dec. 1, 1790.

CYPRIPEDIUM Calceolus.

Ladies Slipper.

GYNANDRIA Diandria.

GENERIC CHARACTER. *Nectarium* large, inflated, and hollow.

SPECIFIC CHAR. Roots fibrous. Leaves ovato-lanceolate, growing on the ſtem. Flower with four petals.

SYN. Cypripedium Calceolus. *Linn. Sp. Pl.* 1346. *Hudſ. Flo. An.* 392. *Witherin̄g's Bot. Arr.* 1001. Calceolus Mariæ. *Raii Syn.* 385.

IF the beauty or ſcarcity of a plant, or the ſingularity of its ſtructure, entitle it to our notice, the Ladies Slipper certainly merits the firſt place in a work on Britiſh plants. It may indeed be reckoned the queen of all the European Orchideæ. Accordingly it has not only been admired and cheriſhed by the ſcientific botaniſt, but it has among gardeners always been ſold at the higheſt price of any Britiſh vegetable.

It is confined to ſome remote and little frequented woods in the North of England. In a garden this plant is cultivated with more eaſe than many of its tribe. If dried with care it will preſerve the colour of its leaves and flowers much better than plants of the Orchis kind generally do.

We have no other ſpecies of this genus wild in England, nor indeed in Europe, except the rare Cypripedium bulboſum of Lapland, which few botaniſts have ever ſeen.

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VERONICA ſpicata.

Spiked Speedwell.

DIANDRIA Monogynia.

GENERIC CHAR. *Cor.* inferior, of one petal, four-cleft; lower diviſion narroweſt. *Capſule* two-celled.

SPECIF. CHAR. Spike terminal. Leaves oppoſite, crenated, obtuſe. Stem aſcending, undivided.

SYN. Veronica ſpicata. *Linn. Sp. Pl.* 14. *Hudſ. Fl. An.* 3. *With. Bot. Arr.* 8. *Relh. Cantab.* 3.
V. ſpicata recta minor. *Raii Syn.* 279.

VERONICA ſpicata is one of thoſe plants which wherever they grow are found in abundance, and yet are by no means common in England. It is plentiful on Newmarket Heath, and in that neighbourhood, on a chalky ſoil, from whence our ſpecimen was taken. When cultivated it becomes much more luxuriant.

This ſpecies is not unfrequent abroad in alpine ſituations; and its bright blue flowers agreeably enliven the barren places where it generally grows.

The orifice of the tube of the corolla is bearded in this Veronica, which we do not find remarked in authors. Flora Danica, plate 52, repreſents no ſuch character; but indeed that figure is ſo incorrect, it is impoſſible to be certain whether it be V. ſpicata, or one of the ſpecies nearly allied to that plant.

ERICA vagans.

Corniſh Heath.

OCTANDRIA Monogynia.

GENERIC CHAR. *Cor.* of one petal. *Cal.* four-leaved, inferior. *Filaments* inſerted into the receptacle. *Antheræ* bifid. *Capſule* four-celled.

SPECIF. CHAR. Antheræ beardleſs, prominent: corolla bell-ſhaped: ſtyle prominent. Leaves in fours. Flowers one on each foot-ſtalk.

SYN. Erica vagans. *Linn. Mant.* 2. 230.
E. multiflora. *Hudſ. Fl. An.* 166.
E. didyma. *With. Bot. Arr.* 400.
E. foliis Corios multiflora. J. B. *Raii Syn.* 471.

THIS Heath, although very abundant in Cornwall, has not yet been found in any other part of England, nor has its Linnæan name been hitherto determined. Mr. Hudſon referred it to the multiflora of Linnæus, which it reſembles in appearance, but is a very diſtinct ſpecies. Dr. Stokes firſt doubted its being that plant, and gave it a new name, *didyma*, from the twin antheræ, a circumſtance however by no means peculiar to this ſpecies. We therefore retain the Linnæan denomination, though not a very expreſſive one; as we are aſſured by Dr. Smith that it is undoubtedly the plant intended by Linnæus, and which he called *vagans* (wandering), becauſe found in ſo many different and remote countries, as Africa, France, and other parts of the South of Europe; to which we now add our own kingdom, as a further apology for the name.

The Corniſh Heath is not unfrequent in the botanic gardens about London, where it grows freely, and looks well. In Cornwall it is as common with white as with red flowers.

We have not been able to meet with a figure of this plant in any author.

Primula vulgaris.

J. Sowerby del. Dec.r 1. 1794.

PRIMULA vulgaris.

Common Primroſe.

PENTANDRIA Monogynia.

GEN. CHAR. *Capſule* 1-celled, ſuperior. *Tube* of the *corolla* cylindrical, mouth pervious. *Stigma* globoſe.

SPEC. CHAR. Leaves dentated, wrinkled. Border of the corolla flat.

SYN. Primula vulgaris. *Hudſ. Fl. An.* 83.
P. acaulis. *With. Bot. Arr.* 204.
P. veris var. γ. *Linn. Sp. Pl.* 205. *Fl. Dan. t.* 194.
P. veris vulgaris. *Raii Syn.* 284.

LINNÆUS, ever deſirous of avoiding too great a multiplication of ſpecies, conſidered the Primroſe, Oxlip and Cowſlip, as varieties only of each other; but moſt botaniſts have differed from him in this particular. Some have gone ſo far as to reckon them three diſtinct ſpecies. It ſeems however moſt agreeable to nature to conſider the firſt and laſt as diſtinct, though much more nearly akin than an inexperienced obſerver would ſuppoſe, and the rim of the corolla being concave in one and flat in the other, is a ſufficiently good ſpecific character.

The Oxlip (P. veris β of Linn. *Fl. Dan. t.* 434.), if not an hybrid production between the other two, may perhaps with the greateſt propriety be reckoned a variety of the Primroſe, from which it principally differs in having an elongated common foot-ſtalk, like the Cowſlip; whereas the common foot-ſtalk of the Primroſe is ſo ſhort as to be concealed among the leaves, as Linnæus and Dr. Stokes have obſerved. This plant is found every where in woods, thickets, and paſtures, flowering in April and May. Its bloſſoms have an agreeable fragrance.

"The Primroſe pale and Violet blue," being the chief ornaments of a ſeaſon which every paſtoral poet delights to celebrate, have been more frequently honoured in verſe than moſt other wild flowers.

Primula veris.

J. Sowerby del. Jan.y 1.1791.

PRIMULA veris.

Common Cowſlip.

PENTANDRIA Monogynia.

GEN. CHAR. *Capſule* one-celled, ſuperior. *Tube* of the *corolla* cylindrical, mouth pervious. *Stigma* globoſe.

SPEC. CHAR. Leaves dentated, wrinkled. Border of the corolla concave.

SYN. Primula veris. *Hudſ. Fl. An.* 84. *Linn. Sp. Pl.* 204. *Fl. Dan. t.* 433.

P. officinalis. *With. Bot. Arr.* 203.

P. veris major. *Raii Syn.* 284.

IN ſpeaking of the Primroſe we have already mentioned its affinity to this plant; one circumſtance is however remarkable in the Cowſlip, a contraction towards the middle of its leaves, which is not ſeen in the former. The Cowſlip is nearly as common, and flowers at the ſame time: it prefers a clay ſoil, and generally an open ſituation.

Cowſlip flowers are fragrant, and make a pleaſant wine, approaching in flavour to the Muſcadel wines of the South of France.

The leaves of this plant and the Primroſe are ſaid to afford nouriſhment to ſilk-worms: but thoſe animals are ſo very delicate, and the quality of their ſilk is ſo apt to be injured by the moſt trifling cauſes, that they are ſeldom found worth cultivating as an article of commerce, unleſs fed with the beſt and moſt healthy leaves of the White Mulberry (Morus alba). It is however an object worthy of the curioſity of thoſe who breed them for amuſement, to try what kinds of food may beſt be ſubſtituted in the place of their natural aliment, when a backward ſpring retards the growth of the Mulberry leaves.

Primula farinosa.

PRIMULA farinoſa.

Bird's-Eye Primroſe.

PENTANDRIA Monogynia.

GEN. CHAR. *Capſule* one-celled, ſuperior. *Tube* of the *corolla* cylindrical, mouth pervious. *Stigma* globoſe.

SPEC. CHAR. Leaves crenated, ſmooth. Border of the corolla flat.

SYN. Primula farinoſa. *Linn. Sp. Pl.* 205. *Hudſ. Fl. An.* 84. *With. Bot. Arr.* 204. *Fl. Dan. t.* 125.
Verbaſculum umbellatum alpinum minus. *Raii Syn.* 285.

WET paſtures and little rills on the ſides of mountains in the north of England, eſpecially in Weſtmoreland, are the favourite ſituations of this elegant plant, nor can our Britiſh Flora boaſt many more beautiful productions. Of late years it has been frequently introduced into gardens. The powdery whiteneſs of its ſtalks and the backs of its leaves reſembles that of the Auricula. This circumſtance, from whence the trivial name *farinoſa* is taken, is not repreſented in the Flora Danica.

The habit of this Primula moſt nearly approaches that of the genera Androſace and Aretia, two very elegant tribes of plants found in alpine ſituations on the continent, and much ſought after by botaniſts. In thoſe genera however the tube of the corolla is oval, not cylindrical, and its orifice more or leſs cloſed with glands; whereas in all the Primulas that part is open, and only ſlightly crenated. Nevertheleſs theſe three genera, and even Cortuſa, might perhaps be united without any great violence to nature.

F. Stanesby del.t Feb.y 1.1791.

PARIS quadrifolia.

Herb Paris.

OCTANDRIA Tetragynia.

GEN. CHAR. *Cal.* four-leaved. *Petals* 4, tapering. *Berry* four-celled.

SPEC. CHAR. none, as we know but this ſpecies of the genus.

SYN. Paris quadrifolia. *Linn. Sp. Pl.* 526. *Hudſ. Fl. An.* 172. *With. Bot. Arr.* 416. *Relh. Cantab.* 163. Herba Paris. *Raii Syn.* 264.

THIS plant is a native of ſhady woods in moſt parts of England, though very rare in ſome counties, and not very common in any. Its appearance is ſingular, and not beautiful. The number four remarkably prevails in its compoſition, and it is generally conſtant to that number, though ſometimes found with three leaves and ſometimes with five. The ſtem is always ſimple.

The origin of its name is uncertain. Some etymologiſts derive it from *par*, a pair, on account of the leaves of this plant growing in pairs*: but this would be more applicable to any plant with two oppoſite leaves, for the leaves of Paris are verticillated. Linnæus therefore more wiſely reckons it among the Latin generic names of unknown derivation.

The ſame author ſays, in Flora Lapponica, its roots may ſerve inſtead of ipecacuanha as an emetic, but muſt be given in twice the quantity. The berry is narcotic, and the whole plant has always been eſteemed poiſonous.

* Ambroſini Phytologia, 506.

CHELIDONIUM Glaucium.

Yellow Horned-Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* two-leaved. *Cor.* of four petals. *Pod* linear, one-celled.

SPEC. CHAR. Flower-ſtalks ſingle-flowered. Leaves embracing the ſtem, ſinuated. Stem ſmooth.

SYN. Chelidonium Glaucium. *Linn. Sp. Pl.* 724. *Hudſ. Fl. An.* 229. *With. Bot. Arr.* 548.
Papaver corniculatum luteum. *Raii Syn.* 309.

FROM one annual root ariſe ſeveral branched and wide-ſpreading ſtems, each about two or three feet long, ſo that a ſingle plant occupies a conſiderable ſpace. The ſeed veſſels are alſo much longer than could be expreſſed in our figure, meaſuring frequently ten or twelve inches. The large and numerous flowers, which, although of ſhort duration, ſucceed one another in great abundance during moſt part of the ſummer, make a fine contraſt with the ſea-green "dew-beſpangled" leaves, and are a great ornament to the ſandy ſhores where this plant grows. It is not uncommon on the Engliſh coaſt, and grows frequently even within reach of the ſpray of the ſea. The ſhores of Norfolk and Suffolk produce it in abundance.

The whole plant is fœtid, and of a poiſonous quality. It is ſaid to occaſion madneſs.

Whether this be the true Glaucium of Dioſcorides is much to be doubted. Among the unpubliſhed plates, engraved from the celebrated manuſcript of that author, in the Imperial library, an impreſſion of which is in the Linnæan collection, is a figure of his plant; but not ſufficiently perfect to aſcertain what it is; although certainly more like our Chelidonium Glaucium than Argemone mexicana, which Caſpar Bauhin took for the Glaucium of Dioſcorides.

11

J. Sowerby del. Feb.y 1.1794

SAXIFRAGA oppoſitifolia.

Purple Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* in five ſegments. *Cor.* of five petals. *Capſule* with two beaks, one-celled; *ſeeds* numerous.

SPEC. CHAR. Leaves oppoſite, imbricated all along the ſtem, the upper ones ciliated. Flowers ſolitary, terminal.

SYN. Saxifraga oppoſitifolia. *Linn. Sp. Pl.* 575. *Hudſ. Fl. An.* 180. *With. Bot. Arr.* 432. *Fl. Dan. t.* 34.
S. Alpina ericoides, flore cæruleo. *Raii Syn.* 353.

A NATIVE of the higheſt alpine rocks, eſpecially of Snowdon and Ingleborough, where it is "doomed to bluſh (for the moſt part) unſeen" on the firſt melting of the ſnow. In the latter part of ſummer the plant acquires a dark mahogany colour, like that of ſome ſpecies of Jungermannia, the young leaves only remaining green. The beauty of its flowers has cauſed it to be cultivated in pots for ornamenting rooms in ſpring, mixed with Hyacinths, Narciſſuſes, &c. with which it makes an agreeable variety.

The figure in Flora Danica repreſents this plant in a dwarf ſtate: ours is taken from a cultivated, and therefore more luxuriant ſpecimen, reſembling the appearance of the plant as it is found on the Alps of Switzerland.

J. Sowerby del.t Mar. 1. 1791.

ORCHIS conopſea.

Aromatic Orchis.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* a ſpur behind the flower.

SPEC. CHAR. Bulbs palmated. Nectary very ſlender and acute, longer than the germen; lip in three parts. Two of the petals ſpreading very much.

SYN. Orchis conopſea. *Linn. Sp. Pl.* 1335. *Hudſ. Fl. An.* 385. *With. Bot. Arr.* 977. *Relh. Cantab.* 335.

Palmata rubella cum longis calcaribus rubellis. *Raii Syn.* 381.

THIS Orchis is found in wet paſtures and bogs, in June and July. Its flowers are highly fragrant, approaching in ſmell to the red clove pink; their colour varies from deep purpliſh red, to fleſh colour, and even white. Its leaves are long, and narrower than thoſe of any other Engliſh ſpecies.

The ſpecific name Conopſea alludes to a fancied reſemblance of the flowers of this plant to the genus of inſects called Conops by Linnæus. In many other ſpecies of this tribe the flowers much more evidently reſemble inſects.

THALICTRUM minus.

Leſſer Meadow-rue.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* four or five. *Seeds* naked and beardleſs.

SPEC. CHAR. Leaves in ſix diviſions. Flowers nodding.

SYN. Thalictrum minus. *Linn. Sp. Pl.* 769. *Hudſ. Fl. An.* 238. *With. Bot. Arr.* 569. *Relh. Cantab.* 210. *Raii Syn.* 203.

A NATIVE of chalky and lime-ſtone ſoils in various parts of England; but being only found in ſuch, it is by no means a common plant.

The eſſential character of this ſpecies, as given by Linnæus, is not at all clear: but it appears he meant that the leaves are compounded in a ſixfold order, which is generally near the truth; not (as ſome have underſtood it) that the *foliola* are in ſix diviſions, which can never be the caſe, unleſs by accident, as they have a central lobe, and conſequently an odd number of diviſions.

The purple tips of the leaves, and a blueiſh bloom on the ſtem, are pointed out by Linnæus as characteriſtics of this plant; and he alſo mentions it as flowering rather early. With us it is ſeldom ſeen in flower before July.

1
2

CAMPANULA Trachelium.

Nettle-leaved Bell-flower.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* bell-ſhaped, cloſed at the bottom by valves bearing the ſtamina. *Stigma* three-cleft. *Capſule* inferior, opening by lateral pores.

SPEC. CHAR. Stem angular. Leaves on foot-ſtalks. Calyx fringed. Flower-ſtalks three-cleft.

SYN. Campanula Trachelium. *Linn. Sp. Pl.* 235. *Hudſ. Fl. An.* 96. *With. Bot. Arr.* 218. *Relh. Cantab.* 94.

Campanula vulgatior foliis Urticæ, vel major et aſperior. *Raii Syn.* 276.

FOUND in woods and hedges in a gravelly ſoil in various parts of Great Britain. The root is perennial; and the flowers, which are occaſionally found white, appear in the middle of ſummer. The ſtem is from two to three feet high, and the harſh rough leaves look very like thoſe of a nettle.

Of all our Britiſh ſpecies of Campanula, except the *rotundifolia*, this is the moſt common: the reſt may be reckoned among the rarer plants.

Fig. 1. Repreſents a ſtamen on its valve, ſeparate.

— 2. Seed-veſſel.

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Glaux maritima

GLAUX maritima.

Black Salt-wort.

PENTANDRIA Monogynia.

GEN. CHAR. *Cal.* one-leaved, campanulate. *Cor.* none. *Capſule* ſuperior, one-celled, five-valved, and five-ſeeded.

SPEC. CHAR. Only one ſpecies known.

SYN. Glaux maritima. *Linn. Sp. Pl.* 301. *Hudſ. Fl. An.* 101. *With. Bot. Arr.* 246. *Raii Syn.* 285.

NOTHING can be more common than this pretty little plant in ſalt marſhes. It enlivens large tracts of the dreary and wretched ſituations where it is found, with its purpliſh fleſh-coloured or whitiſh flowers, which are produced in great abundance in the ſummer, ſtanding ſolitary, and with ſcarcely any foot-ſtalks, in the boſoms of the leaves.

The root is perennial and creeping.

The whole plant is ſucculent and ſalt to the taſte. Dr. Withering remarks that cows eat it.

Polemonium caeruleum.

POLEMONIUM cæruleum.

Jacob's Ladder.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* in five ſegments. *Stamina* ſtanding on five valves which cloſe the tube. *Stigma* three-cleft. *Capſule* three-celled, ſuperior.

SPEC. CHAR. Leaves pinnated. Flowers erect. Calyx longer than the tube of the corolla.

SYN. Polemonium cæruleum. *Linn. Sp. Pl.* 230. *Hudſ. Fl. An.* 89. *With. Bot. Arr.* 215.

P. vulgare cæruleum. *Raii Syn.* 288.

THIS, although very common in gardens, is one of the plants moſt rarely found wild in this country. Botaniſts of the laſt century gathered it in the romantic and mountainous country about Malham Cove, in the north of Yorkſhire, where it ſtill grows, as well as in ſome parts of Derbyſhire (*Withering*).

A variety with white flowers is very common, ſometimes even from the ſame root as the blue ones (*Linnæus*); the faint purpliſh blue ſeen in the flowers of this plant, being that which of all colours is moſt apt to vary to white.

Its ſtems riſe to the height of eighteen or twenty inches, ſeldom more. The root is fibrous and perennial.

This plant is abſurdly enough reckoned among th[illegible]rians by the old authors, with which it has not the leaſt affinity either in appearance, botanical characters, ſenſible qualities, or medical virtues.

TRIENTALIS europæa.

Chick-weed Winter-green.

HEPTANDRIA Monogynia.

GEN. CHAR. *Cal.* ſeven-leaved. *Cor.* in ſeven ſegments, regular and flat. *Berry* dry.

SPEC. CHAR. Leaves lanceolate and entire.

SYN. Trientalis europæa. *Linn. Sp. Pl.* 488. *Hudſ. Fl. An.* 160. *With. Bot. Arr.* 384.

Alſinanthemos. *Raii Syn.* 286.

FOUND in dry woods and turfy heaths in the north of England, more plentifully in Scotland, as it is a plant chiefly confined to the moſt northern regions.

Linnæus in Flora Lapponica appears to have been quite enchanted with this plant, poſſibly from its being the only Lapland genus of his ſeventh claſs, and which therefore delighted him in an extraordinary degree, as completing the uniformity of his ſyſtem. It muſt be confeſſed however that the number of its ſtamina is very inconſtant.

The ſpecific character in *Species Plantarum*, as given above, is now ſuperfluous, this being the only known ſpecies of Trientalis, ſince the Trientalis Capenſis of Sp. Pl. firſt edition, has been made a ſeparate genus by the name of Septas.

We ſhall in future leave a blank, in place of the ſpecific character, when the plant in queſtion is the only one of its genus.

Orchis fusca

ORCHIS militaris.

Military Orchis.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* a ſpur behind the flower.

SPEC. CHAR. Bulbs undivided. Lip of the nectary five-cleft, rough with points: horn obtuſe. Petals confluent.

SYN. Orchis militaris. *Linn. Sp. Pl.* 1333. *Hudſ. Fl. An.* 384. *With. Bot. Arr.* 974.

O. magna, latis foliis, galea fuſca vel nigricante. *Raii Syn.* 378.

THERE are few of the Engliſh Orchiſes which can come in competition with the ſpecies here repreſented, in point of elegance. From a fancied ſimilitude in the nectarium to the ſhape of the human body, it has obtained its popular title of Man-Orchis. In the colour of its flowers it varies conſiderably: the nectarium indeed generally preſerves an uniformity of colour in moſt individuals; but the petals in ſome are of a much deeper tinge than in others, being frequently of a pale aſh colour; at other times of a browniſh caſt, and in ſome individuals even of a deep browniſh purple, which variety is uſually called the blackiſh-flowered Man-Orchis. This ſpecies flowers in the beginning of June, and grows generally on dry and chalky ſoils, and in the neighbourhood of woods. It is much leſs common than ſeveral others of this genus. As there is another ſpecies of Britiſh Orchis which is generally known by the title of Man-Orchis (and which will hereafter be figured in the preſent work), we have thought it better to apply the term Military to this ſpecies, taken from the Latin name, which has been given on account of the reſemblance which the upper part of the flower bears to a helmet.

NARCISSUS Pſeudo-narciſſus.

Common Daffodil.

HEXANDRIA Monogynia.

GEN. CHAR. *Petals* ſix, equal. *Nectarium* funnel-form, one-leaved. *Stamina* within the nectarium.

SPEC. CHAR. Spatha one-flowered. Nectarium bell-form, erect, curled, and equalling the ovate petals.

SYN. Narciſſus pſeudo-narciſſus. *Linn. Sp. Pl.* 414. *Hudſ. Fl. An.* 181. *With. Bot. Arr.* 342.
N. ſylveſtris pallidus, calyce luteo. *Raii Syn.* 371.

THE Narciſſus Pſeudo-narciſſus, or common Daffodil, may be conſidered as one of the moſt beautiful of the native plants of this kingdom. It grows chiefly in damp ſituations. The name Pſeudo-narciſſus, or Falſe Narciſſus, was given to this ſpecies, in order to prevent its being confounded with the True Narciſſus of the ancients, or Narciſſus Poeticus. In the deſcriptions of rural poetry it has long been celebrated, and ſeldom fails to obtain an honourable mention amongſt the opening beauties of the ſpring. There is an exotic ſpecies of this genus which extremely reſembles the preſent; in that ſpecies however the petals have a more expanded appearance, and the whole plant is conſiderably larger. To this may be added, that in our preſent ſpecies the alternate petals are ſomewhat ſmaller. The figure here given we have copied from a moſt elegant drawing preſented by Richard Anthony Saliſbury, Eſq. a gentleman eminently diſtinguiſhed for the accuracy of his botanical reſearches.

Orchis ustulata.

J. Sowerby del. et fec. 1 Jan. 1796.

ORCHIS uſtulata.

Dwarf Orchis.

GYNANDRIA Diandria.

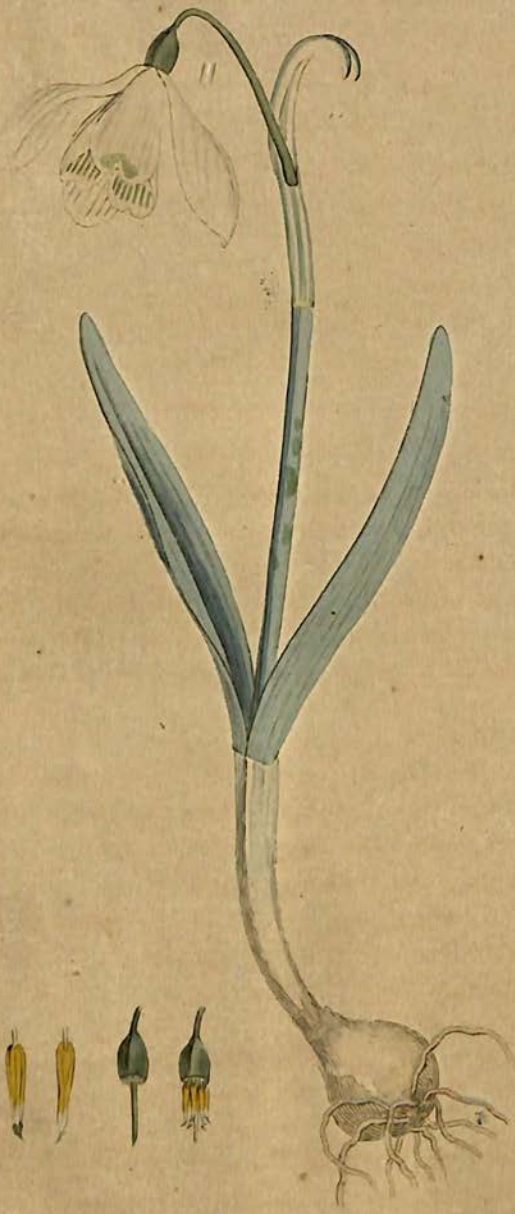
GEN. CHAR. *Nectary* a ſpur behind the flower.

SPEC. CHAR. Bulbs undivided. Lip of the nectary four-cleft, rough with points; horn obtuſe, petals diſtinct.

SYN. Orchis uſtulata. *Linn. Sp. Pl.* 1333. *Hudſ. Fl. An.* 384. *With. Bot. Arr.* 973.

O. pannonica 4. *Raii Syn.* 377.

THE Little Orchis figured on this plate has obtained its trivial name of *uſtulata*, from the remarkable colour of its flowers, which appear on a curſory view, and eſpecially before they are fully expanded, as if ſcorched or blackened by heat. When viewed narrowly they are by no means deſtitute of beauty; the upper part of the flower being of a purple brown, while the lower part or nectarium is of a clear white, ſometimes ſlightly tinged with purple, and ſpeckled with dark brown points. It frequently happens that the flowers are ſomewhat more thickly or cloſely ſet than in the ſpecimen here figured; but this is a circumſtance which varies much in different individuals. The Orchis uſtulata occurs only on dry and chalky ſoils, and flowers in June.



GALANTHUS nivalis.

Snowdrop.

HEXANDRIA Monogynia.

GEN. CHAR. *Corolla* of ſix petals, three of which are ſmaller than the reſt, and emarginated. *Stigma* ſimple.

SPEC. CHAR. . . .

SYN. Galanthus nivalis. *Linn. Sp. Pl.* 413. *Hudſ. Fl. An.* 140. *With. Bot. Arr.* 340.

ON the authority of Mr. Hudſon and Dr. Stokes, the Snowdrop is now admitted into the liſt of Britiſh plants, although not deſcribed as ſuch by Ray. Whether originally a native or not, it is now found in a wild ſtate in many different ſituations, ſuch as orchards, graſſy meadows, groves, and thickets. Dr. Stokes, whoſe accuracy and extenſive information none who peruſes the *Botanical Arrangement of Britiſh Plants* can doubt, is particularly exact in aſſerting that he has gathered it remote from all traces of buildings or gardens.

No plant is more generally cultivated, or more cordially welcomed as the herald of approaching ſpring. It frequently pierces through the unmelted ſnow, which it rivals in whiteneſs, and remains uninjured by a ſeaſon, during whoſe inclemency moſt vegetable productions lie dormant. Who can read the following charming lines on the Snowdrop, by Mrs. Barbauld, without admiration?

> "As nature's breath, by ſome transforming pow'r,
> "Had chang'd an icicle into a flow'r.——
> "Its name and hue the ſcentleſs plant retains,
> "And winter lingers in its icy veins."

Our figure repreſents the entire plant drawn from a garden ſpecimen, it not being eaſy to obtain a perfectly wild one. Annexed are the parts of fructification ſeparate, viz. 1ſt, the ſtamina and piſtillum (the petals being cut off); next, the ſtyle and germen alone, and an anthera magnified in two different poſitions.

J. Sowerby del. June 1. 1790.

GENTIANA Pneumonanthe.

Marſh Gentian, or *Calathian Violet.*

PENTANDRIA Digynia.

GEN. CHAR. *Cor.* of one petal. *Capſule* ſuperior, one-celled, two-valved, with two longitudinal receptacles.

SPEC. CHAR. Corolla bell-ſhaped, five-cleft. Flowers on foot-ſtalks. Leaves linear.

SYN. Gentiana Pneumonanthe. *Linn. Sp. Pl.* 330. *Hudſ. Fl. An.* 102. *With. Bot. Arr.* 261.

G. paluſtris anguſtifolia. *Raii Syn.* 274.

WE are indebted for the wild ſpecimen here figured of this rare and beautiful Gentian to the Rev. Mr. Charles Sutton, B. D. of Norwich, who gathered it on Stratton Strawleſs Heath, a few miles from that city, the very place in which it was found by the amiable Stillingfleet many years ago. It uſually prefers a wet turfy ſoil, and flowers in Auguſt.

Mr. Sutton remarks that the leaf varies in figure from *linear* to almoſt *ſpatulate;* that the antheræ are united till the capſule ſwells, and forcibly ſeparates them; and that after a wet ſpring the plant is found much more luxuriant, bearing five, ſix, or ſeven flowers, inſtead of one or two.

Such a gigantic ſpecimen appears to have occaſioned Linnæus to define it *corollis oppoſitis*, having *oppoſite corollas*, or rather *flowers;* but we have omitted this in our ſpecific character, as tending to miſlead. The connection of the antheræ is full as remarkable as that of Lobelia, and more ſo than in Viola; both which, on account of ſuch an adheſion, are placed in the claſs Syngeneſia: but the inconſtancy of this character, except in *compound flowers*, ſeems to authoriſe the abolition of the order Syngeneſia Monogamia altogether.

J. Sowerby del. et fec. 1794.

ORNITHOGALUM luteum.

Yellow Star of Bethlehem.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* of ſix petals, erect, permanent, from about the midway ſpreading. *Filaments* alternately broader at the baſe.

SPEC. CHAR. Stalk angular, bearing two leaves. Flower-ſtalks in an umbel, undivided.

SYN. Ornithogalum luteum. *Linn. Sp. Pl.* 439. *Hudſ. Fl. An.* 143. *With. Bot. Arr.* 347. *Raii Syn.* 372.

FLOWERS in March and April, in woods and paſtures, but in very few parts of England. Near Oxford it has been found plentifully, and in ſome parts of Yorkſhire, from whence this ſpecimen was communicated by R. A. Saliſbury, Eſq.

The floral leaves are ciliated with fine white hairs, of which the radical one (which is almoſt always ſolitary) is deſtitute. The antheræ, before they burſt, are oblong; afterwards they become remarkably ſhortened, and almoſt round, but didymous, as repreſented at the bottom of our plate. The ſtyle is triangular. The petals, always of a pale green externally, aſſume that colour entirely as they wither, and become cloſed round the ſeed-veſſel.

J. Sowerby del.t July 1. 1791

ORCHIS bifolia.

Butterfly Orchis.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* a ſpur behind the flower.

SPEC. CHAR. Bulbs undivided. Lip of the nectary lanceolate and entire, the horn very long. Outer petals ſpreading.

SYN. Orchis bifolia. *Linn. Sp. Pl.* 1331. *Hudſ. Fl. Ann.* 382. *With. Bot. Arr.* 967. *Relh. Cantab.* 331.

Orchis hermaphroditica bifolia. *Raii Syn.* 380.

IN meadows and paſtures throughout moſt parts of England, but ſeldom in great plenty. The flowers appear about the beginning of June, and are highly fragrant, eſpecially in an evening. Their pale greeniſh white colour, without any mixture of red, is unuſual in this genus. The leaves are large, and of a bright unſpotted green, like thoſe of lily of the valley.

The ſynonym of Ray above quoted ſeems to agree beſt with our figure and the uſual appearance of the plant, though cited as a variety by Mr. Hudſon; the *Orchis alba bifolia minor calcari oblongo* of Ray's Synopſis, which is ſmaller, and flowers later, being conſidered in the Flora Anglica as the original ſpecies. This is well figured in Flora Danica, t. 235, which is our principal reaſon for figuring the other.

J. Sowerby del.t July 1. 1791.

SCILLA verna.

Vernal Squill.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* of ſix petals, ſpreading, deciduous. *Filaments* of equal thickneſs throughout.

SPEC. CHAR. Root ſolid. Corymbus hemiſphærical, with few flowers. Bracteæ lanceolate, obtuſe. Leaves linear, channelled, numerous.

SYN. Scilla verna. *Hudſ. Fl. An.* 142. *With. Bot. Arr.* 348. *Aiton Hort. Kew. V.* 1. 445.

S. bifolia. *Lightf. Fl. Scot.* 181. *Fl. Dan. t.* 568. Hyacinthus, No. I. *Raii Syn.* 372. (The ſynonyms falſe.)

THIS is a maritime plant found among rocks on the weſtern coaſts of Wales, in the Iſle of Man, and in the Hebrides. Our ſpecimen was produced in the Muſeum garden, under the care of Mr. Dickſon, from a bulb brought from the weſt of England. The plant appears in its wild ſtate to be leſs luxuriant. It flowers in April.

Mr. Hudſon firſt proved this to be diſtinct from the Linnæan Scilla bifolia; but we cannot help thinking the ſynonyms he has cited belong rather to Scilla Italica Linn. though very like ours at firſt ſight. It is not without reluctance we diſſent from a writer to whom the botany of England is ſo very much obliged, and whoſe merit is beſt known to thoſe who have moſt deeply ſtudied the ſame ſubject.

J. Sowerby del.t July 1.1791

SCILLA bifolia.

Two-leaved Squill.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* of ſix petals, ſpreading, deciduous. *Filaments* of equal thickneſs throughout.

SPEC. CHAR. Root ſolid. Flowers nearly erect, without bracteæ. Leaves lanceolate, generally two.

SYN. Scilla bifolia. *Linn. Sp. Pl.* 443. *Jacq. Fl. Auſt. V.* 2. 11. *t.* 117.

Hyacinthus ſtellatus Fuchſii. *Ger. em.* 106.

WE are induced to preſent the Engliſh botaniſt with a figure of this plant, not merely becauſe it is what has been confounded, even by Ray himſelf, with Scilla verna, but chiefly becauſe it is a doubtful matter, after all, whether it be not likewiſe a native of Britain. Our authority for ſaying ſo is Buddle's Herbarium, preſerved in the Britiſh Muſeum, and always ſuppoſed deciſive in ſuch caſes, as containing native ſpecimens alone. In that collection is to be ſeen an indubitable ſpecimen of Scilla bifolia, with the ſynonym in Ray's Synopſis, p. 372; but, unluckily, without mention of any particular place of growth. It is moreover marked *Herb. Britt. tab.* 67, *f.* 5, which refers to Petiver's Engliſh Herbal, where a figure of it is to be found, rude indeed, like all thoſe of Petiver, but ſufficient to aſcertain the plant.

Scilla bifolia grows on the continent in groves and thickets, flowering in the ſpring. The ſpecimen here figured flowered in a garden, but from whence brought is not known. The leaves are ſcarcely ever more than two in number; the bracteæ either altogether wanting, or ſo minute as to be hardly perceptible. Moſt of the ſpecies of this genus are characterized *radice ſolida* (with a ſolid bulb), to diſtinguiſh them from Scilla Lilio-hyacinthus, which has the ſcaly bulb of a lily, a circumſtance which ſome botaniſts ſeem to have miſunderſtood.

VERONICA verna.

Vernal Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft; lower diviſion narroweſt. *Capſule* two-celled.

SPEC. CHAR. Flowers ſolitary. Leaves with fingered diviſions, longer than the flower ſtalks, which are ſhorter than the calyx.

SYN. Veronica verna. *Linn. Sp. Pl.* 19. *Hudſ. Fl. An.* 8. *With. Bot. Arr.* 15. *Roſe's Bot. (Appendix)* 444. *t.* 2. *f.* 1.

FIRST found by the late Sir John Cullum, Bart. in dry ſandy fields about Bury in Suffolk, and not yet diſcovered in any other part of England that we know of. It is an annual, flowering in April and May. From its near reſemblance at firſt ſight, eſpecially when luxuriant, to Veronica arvenſis, it may perhaps have been overlooked for that plant. They are however perfectly diſtinct.

If Moriſon's figure, ſect. 3. t. 24. f. 21. be intended for Veronica verna, as Dr. Stokes ſuſpects, it is a very inaccurate repreſentation of the plant.

J. Sowerby del. Aug.t 1. 1791

VERONICA triphyllos.

Trifid Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft, lower diviſion narroweſt. *Capſule* two-celled.

SPEC. CHAR. Flowers ſolitary. Leaves with deeply fingered diviſions. Flower-ſtalks longer than the calyx.

SYN. Veronica triphyllos. *Linn. Sp. Pl.* 19. *Hudſ. Fl. An.* 7. *With. Bot. Arr.* 15.

Veronica floſculis ſingularibus, foliis laciniatis, erecta. *Raii Syn.* 280.

FOR the wild ſpecimens here figured of this plant and the preceding, we are obliged to Sir Thomas Cullum, Bart. who gathered them near Bury, and kindly communicated them in a recent ſtate, along with Holoſteum umbellatum, and ſeveral other rare plants, all which will in due time appear in this work. V. triphyllos is always much larger, and more diffuſe, than the verna, its leaves more deeply divided, and their ſegments more or leſs obovate: neither is it quite ſo rare a plant, having been found in ſandy fields in various parts of Norfolk and Suffolk. It flowers early, and, like the verna, varies much in ſize, according to the ſhare of nouriſhment it meets with. Nothing is more common than for young Engliſh botaniſts, in gathering Veronica hederifolia with leaves more than uſually deeply cut, to think they have found V. triphyllos.

J. Sowerby del. Aug.st 1.1791

HOLOSTEUM umbellatum.

Umbelliferous Chickweed. . .

TRIANDRIA Trigynia.

GEN. CHAR. *Cal.* five-leaved. *Cor.* of five petals. *Capſule* one-celled, nearly cylindrical, burſting at the top.

SPEC. CHAR. Flowers in umbels.

SYN. Holoſteum umbellatum. *Linn. Sp. Pl.* 130. *With. Bot. Arr.* 132. *Roſe's Elements (Appendix)*, 445. *t.* 2. *f.* 4.

Ceraſtium umbellatum. *Hudſ. Fl. An.* 201.

THIS plant was firſt diſcovered in England by Mr. John Pitchford, a moſt accurate and indefatigable botaniſt, who found it in the ſpring of 1765, on the walls of Norwich. We are informed it was a long time before this gentleman's diſcovery met with any credit, ſome of the firſt Engliſh botaniſts miſtaking this plant for Ceraſtium ſemidecandrium. Mr. Roſe however deſcribed and figured it, with its proper ſynonyms, in his Elements of Botany, publiſhed in 1775; a work which has eminently contributed to explain and recommend the ſyſtem and principles of Linnæus in this country. Soon afterwards Mr. Hudſon admitted it into the ſecond edition of his Flora, under the genus of Ceraſtium, with which it agrees in habit, and to which the number of its ſtamina and ſtyles are ſaid often nearly to approach. We have not however found the petals ſo regularly biſid as they are in Ceraſtium; nor have we ſeen more than three ſtamina, and as many ſtyles, in each flower; though it muſt be confeſſed we have found the capſules with five valves. Content with delineating every part as it occurred to us, we leave the matter to the deciſion of future obſervers.

The root is fibrous and annual; the whole plant a little glaucous, and remarkably ſmooth, except ſome glandular hairs on the ſtem, at a little diſtance from the flowers. The petals are occaſionally white or reddiſh, and irregularly notched at the top. The flower ſtalks are variouſly divaricated at different ſtages of their growth. This ſpecimen came from Bury.

TROLLIUS europæus.

Globe-flower.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* about fourteen. *Capſules* ſeveral, ovate, many-ſeeded.

SPEC. CHAR. Corolla cloſed. Nectaries the length of the ſtamina.

SYN. Trollius europæus. *Linn. Sp. Pl.* 782. *Hudſ. Fl. An.* 244. *Lightf. Fl. Scot.* 295. *With. Bot. Arr.* 580.

Ranunculus globoſus. *Raii Syn.* 272.

THIS is one of the moſt ſplendid ornaments of groves and thickets in the mountainous parts of Yorkſhire and Weſtmoreland. In the latter it is by no means an uncommon plant, but is collected in abundance, and with great feſtivity, by the youth of both ſexes, about the beginning of June; at which time it is uſual to ſee them return from the woods in an evening laden with its bloſſoms, with wreaths and garlands of which they deck their doors and cottages, and "make haſte to crown themſelves with its beautiful buds before they be withered." The Scottiſh and Swediſh peaſants are no leſs partial to it. *See Lightfoot.*

In the ſouthern parts of England we meet with this plant in gardens only; our ſpecimen is therefore a cultivated one. It has been compared with dried wild ones, and does not in any reſpect differ from them. The root is fibrous and perennial, and thrives beſt in a moiſt ſhady ſituation.

In habit and ſenſible qualities the Trollius agrees with the Hellebores and Ranunculuſes, but is leſs acrid than moſt of them.

OPHRYS anthropophora.

Green Man Orchis.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* conſiſting of a lip only, ſlightly carinated at the back.

SPEC. CHAR. Bulbs roundiſh. Stem leafy. Lip linear, in three diviſions, the middlemoſt elongated and cloven.

SYN. Ophrys anthropophora. *Linn. Sp. Pl.* 1343. *Hudſ. Fl. An.* 390. *With. Bot. Arr.* 991. *Relh. Cantab.* 338.

Orchis anthropophora oreades. *Raii Syn.* 379. *Column. Ecphr.* 1. 320. *f.* 1. good.

FOUND in chalk pits, hedges, and by road ſides in a chalky ſoil, in various parts of England, very frequently in Kent; flowering in June. It is rather ſingular than ſtrikingly beautiful in appearance, and chiefly remarkable for the figure of a naked man repreſented by the lip of its flower; the petals (which are often browniſh) forming a kind of cap or helmet to the figure, as in the Military Orchis, *fig.* 16. The middle ſegment of the lip, however, is merely biſid, without any ſmall intermediate tooth.

Columna has given a very good figure and deſcription of this Ophrys in his Ecphraſis above quoted, and claims the honour of being the firſt who has mentioned it. It has ever ſince been much celebrated, and is one of thoſe ſpecies which Linnæus tells us every body who was curious in plants, when he was at Paris, went from thence to Fontainebleau to ſee in flower, the neighbourhood of that place abounding with this tribe of plants.

J. Sowerby del. Sept. 1791

VICIA lathyroides.

Spring Vetch.

DIADELPHIA Decandria.

GEN. CHAR. *Stigma* tranſverſely bearded on the lower ſide.

SPEC. CHAR. Pods ſeſſile, ſolitary, erect, ſmooth. Leaflets ſix, the lowermoſt inverſely heart-ſhaped. Seeds cubic, warty.

SYN. Vicia lathyroides. *Linn. Sp. Pl.* 1037. *Jacq. Miſc. Auſtr. v.* 2. 299. *t.* 18. excellent. Var. γ. *Hudſ. Fl. An.* 319.

Vicia minima præcox Pariſienſium. *Raii Syn.* 321. *Tournef. Inſt.* 397.

Ervum ſolonienſe. *Linn. Sp. Pl.* 1040. *Hudſ. Fl. An. ed.* 1. 279.

NO Britiſh plant has been leſs underſtood than this Vicia, inſomuch that we dare not quote any authors except the above, it being altogether doubtful what others intend by their Vicia lathyroides; and moſt Engliſh botaniſts, even Mr. Huddſon himſelf, having confounded it with ſmall varieties of Vicia ſativa.

Our plant is found on dry graſſy banks, and in fallow fields on a gravelly ſoil, flowering early in May. The ſtems are numerous, generally proſtrate. The ſtipulæ rarely, if ever, ſpotted. The ſeeds cubic, and rough with minute tubercles. The pods are ſmooth; leaves, ſtems, and ſtipulæ ſlightly hairy. There is no doubt of its being a moſt diſtinct ſpecies, ſufficiently diſtinguiſhable by its ſeeds.

That this is the plant of Tournefort, and conſequently Ervum ſolonienſe of Linnæus, which he took up from that author without having it in his own collection, appears from Tournefort's Herbarium at Paris. That it is the true Vicia lathyroides, is certain from the Linnæan Herbarium. *Dr. Smith.*

Our ſpecimens were ſent from Norwich by Mr. Pitchford, one of the firſt Engliſh botaniſts who well diſtinguiſhed this plant. Mr. Dickſon has found it in the dry parts of Hyde Park. It is annual, and ſcarcely to be met with after the month of June. There is a variety with white flowers.

1020.

Hippocrepis comosa.

Ll. del. July 1st. 1791

HIPPOCREPIS comoſa.

Tufted Horſeſhoe Vetch.

DIADELPHIA Decandria.

GEN. CHAR. *Pod* compreſſed, with many deep notches in one of its edges.

SPEC. CHAR. Pods pedunculated, cluſtered, curved, waved in the external margin.

SYN. Hippocrepis comoſa. *Linn. Sp. Pl.* 1050. *Hudſ. Fl. An.* 321. *With. Bot. Arr.* 783. *Relh. Cantab.* 276.

Ferrum equinum germanicum ſiliquis in ſummitate. *Raii Syn.* 325.

PLENTIFUL on dry chalky banks and hills in Kent, Cambridgeſhire, and other parts of England; but being found in no other kind of ſoil, it is reckoned among the rarer Engliſh vegetables. The root is long, woody, and apparently perennial, as moſt authors make it. Stems numerous, and procumbent. Flowers pale yellow ſtreaked with brown, far leſs ſpecious than thoſe of Lotus corniculatus; with which they are generally intermixed, and may therefore be eaſily overlooked. But when the pods appear, their ſingular figure cannot fail to ſtrike the moſt caſual obſerver. The flowers are to be met with from May to Auguſt; the pods moſt part of the ſummer and autumn.

The deſcriptions of Hippocrepis comoſa quoted in the Botanical Arrangement are very good, and all certainly belong to the ſame ſpecies.

SENECIO viſcoſus.

Stinking Groundſel.

SYNGENESIA Polygamia ſuperflua.

GEN. CHAR. *Receptacle* naked. *Down* ſimple. *Calyx* cylindrical, ſcaly at the baſe; ſcales dead at the tip.

SPEC. CHAR. Radius revolute. Leaves pinnatifid, viſcid. Scales of the calyx lax, and nearly as long as the calyx itſelf, which is hairy.

SYN. Senecio viſcoſus. *Linn. Sp. Pl.* 1217. *With. Bot. Arr.* 909. *Hudſ. Fl. An.* 365. α.

Senecio hirſutus viſcidus major odoratus. *Raii Syn.* 178.

GATHERED by Dr. Smith about the chalk-pits at Dartford in Kent, flowering in July. The root is annual. The whole plant covered with a fetid viſcous liquor which retains ſmall inſects, duſt and light ſubſtances in great abundance. The ſtem is much branched and ſtraggling, not ſimple and erect as in Senecio ſylvaticus. The flowers are in all their parts twice as large as in that plant, but much more ſcattered, and leſs numerous, as well as of a brighter gold colour, and the calyx is hairy. All theſe circumſtances ſurely juſtify us in conſidering them as diſtinct ſpecies.

J. Sowerby del. Oct.r 1791

ASPERULA cynanchica.

Squinancy-wort.

TETRANDRIA Monogynia.

GEN. CHAR. *Corolla* of one funnel-ſhaped petal. *Seeds* two, globoſe.

SPEC. CHAR. Leaves linear, in fours, except the upper ones, which are oppoſite. Stem ſomewhat erect. Flowers four-cleft.

SYN. Aſperula cynanchica. *Linn. Sp. Pl.* 151. *Hudſ. Fl. An.* 66. *With. Bot. Arr.* 159. *Relh. Cant.* 64.

Rubeola vulgaris quadrifolia lævis, floribus purpurantibus. *Raii Syn.* 225.

FOUND on dry, chalky, ſunny banks, in moſt parts of England, flowering in the middle of ſummer. Our ſpecimens came from Dartford. The root is perennial, but does not thrive well in a garden, requiring, probably, like many other plants, its natural ſhelter of herbage. The ſtems are moſtly procumbent, erect at their extremities only. The leaves very unequal in length, generally in fours, rarely five; blunt, but tipped with a ſharp point. The flowers have a great degree of beauty, being white or bluſh-coloured, elegantly marked with red lines. They have a ſweet ſmell, which, however, like that of Woodroof flowers, is rarely to be perceived. As they dry they become rugged, in which ſtate Linnæus appears to have deſcribed them in his Species Plantarum.

Dalechampius ſeems to be the chief authority for the reputation this plant has acquired in the cure of quinſies, from which its name is taken. He ſays it ſhould be applied externally as well as taken inwardly. It is out of uſe, as we are now furniſhed with remedies of more undoubted efficacy in the putrid as well as inflammatory ſore throat.

J. Sowerby del.t Oct.r 1. 1791.

SATYRIUM hircinum.

Lizard Satyrion, or *Orchis.*

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* an inflated roundiſh bag behind the flower.

SPEC. CHAR. Bulbs round. Leaves lanceolate. Lip in three ſegments; the intermediate one very long, twiſted, linear, abruptly jagged at the tip.

SYN. Satyrium hircinum. *Linn. Sp. Pl.* 1337. *Hudſ. Fl. An.* 386. *With. Bot. Arr.* 979.

Orchis barbata fœtida. *Raii Syn.* 376.

IT is with peculiar pleaſure we preſent the public with ſo very rare and curious a plant as that which is here figured, and which was drawn from a wild ſpecimen obligingly communicated from the neighbourhood of Dartford by Mr. Lewin, well known by his fine work on Britiſh birds. Ever ſince the time of Ray it has been occaſionally met with in that neighbourhood, though no where elſe in England; but the greedineſs of collectors has frequently endangered its total deſtruction, and in ſome ſeaſons none can be found in flower. It is the largeſt Engliſh plant of this tribe, frequently attaining the height of three feet, and producing from twenty to ſixty or more flowers, which appear in July, and are remarkable for their fetid goat-like ſmell. The upper part of the lip is downy, and marked with elegant purple ſpots on a white ground, otherwiſe the flowers are more ſingular than beautiful. They dry tolerably well. The plant loves a chalky ſoil, and ſhaded ſituation among ſhrubs and tall graſs.

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Menziesia polifolia.

J. Sowerby del. et fec.

ERICA Dabeoci.

Iriſh Heath.

OCTANDRIA Monogynia.

GEN. CHAR. *Cor.* of one petal. *Cal.* four-leaved, inferior. *Filaments* inſerted into the receptacle. *Antheræ* bifid. *Capſule* four celled.

SPEC. CHAR. Antheræ beardleſs, included. Corolla ovate. Style included. Leaves alternate, ovate, downy beneath.

SYN. Erica daboecia. *Linn. Sp. Pl.* 509. *Hudſ. Fl. An.* 166.

Andromeda daboecia. *Linn. Syſt. Veg. ed.* 13. 338. *With. Bot. Arr.* 425.

Vaccinium cantabricum. *Hudſ. Fl. An. ed.* 1. 143.

Erica cantabrica flore maximo, foliis Myrti ſubtus incanis. *Raii Syn.* 472.

ALTHOUGH Ray has mentioned this plant as a native of Ireland, he has been frequently ſuſpected of having committed an error. We are at length enabled to confirm his account, having been favoured with fine wild ſpecimens gathered laſt year on the ſides of mountains in the county of Mayo, by Aylmer Bourke Lambert, Eſq. F. L. S. It flowers in June and July, and is frequently cultivated with us in gardens.

The partitions of the capſule being formed from the edges of the valves turned in, inſtead of being attached to the centre of each valve, as in Andromeda, has induced Dr. Smith ſtill to conſider this as an Erica (*See Plant. Icones, t.* 58.), notwithſtanding its leaves being moſt commonly alternate, and its reſemblance in habit to the Andromedas. Very rarely the leaves are found oppoſite, or even three together.

Ray tells us in his Hiſtory of Plants that this is called St. Dabeoc's Heath (from whence the Linnæan trivial name has been corruptly taken), and that the Iriſh girls gird themſelves with its long trailing branches as a protection to their chaſtity—With what ſucceſs he unluckily has omitted to inform us.

BORAGO officinalis.

Common Borage.

PENTANDRIA Monogynia.

GEN. CHAR. *Corolla* wheel-ſhaped: the orifice cloſed with rays.

SPEC. CHAR. Leaves all alternate. Calyx ſpreading.

SYN. Borago officinalis. *Linn. Sp. Pl.* 197. *Hudſ. Fl. An.* 82. *With. Bot. Arr.* 197. *Relh. Cant.* 78.
Borrago hortenſis. *Raii Syn.* 228.

THE Borage, whoſe bright blue flowers decorate almoſt every dunghill and heap of rubbiſh, is one of thoſe vegetables which, although not originally of Britiſh growth, are now ſo perfectly naturalized as to find a place in every catalogue of our wild plants. It is ſaid to have been brought from the Levant; and was at firſt cultivated in gardens as a medicinal herb, being reckoned, apparently without reaſon, one of the four cordial flowers. Hence the old adage,

"Ego Borago gaudia ſemper ago"—

which Gerarde renders,

"I Borage bring always courage—"

a tranſlation worthy of the elegance of the original. The ſame author adds from Dodonæus—

"Thoſe of our time do uſe the floures in ſallads, to exhi-
"larate and make the minde glad. There be alſo many things
"made of them, uſed for the comfort of the heart, to drive
"away ſorrow, and increaſe the joy of the minde."

Very light ſurely were thoſe ſorrows that could be ſo driven away! Yet the Borage flowers were at leaſt innocent, which is more than can be ſaid of many more general remedies for care.

The whole herb is ſucculent and very mucilaginous, and has a peculiar faint ſmell when bruiſed. All the green parts are extremely hiſpid, with ſharp rigid white briſtles. The root is ſcarcely more than biennial with us. The flowers appear in great plenty in the ſummer months.

J. Sowerby del. et sc. 1791

POTENTILLA verna.

Spring Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Calyx* in ten ſegments. *Petals* five. *Seeds* roundiſh, naked, affixed to a ſmall dry receptacle.

SPEC. CHAR. Radical leaves quinate, ſharply ſerrated, blunted at the tips; ſtem-leaves ternate. Stem reclining.

SYN. Potentilla verna. *Linn. Sp. Pl.* 712. *Hudſ. Fl. An.* 224. *With. Bot. Arr.* 533. *Relh. Cant.* 197.

COMMUNICATED from the neighbourhood of Bury, in April laſt, by Sir Thomas Cullum, Bart. It is a native of dry elevated paſtures in many parts of Britain, as Gogmagog hills; but eſcaped the notice of Ray.

The ſtems are almoſt proſtrate, and ſpread very far in a circular direction among graſs and other plants. As the ſeaſon advances they turn red, as well as the leaves; which colour, intermixed with the bright yellow of the flowers, makes a ſtriking contraſt; ſo that it ſeems wonderful the plant ſhould have been overlooked. Haller obſerves, that it is a very variable ſpecies, and approaches ſo nearly to many others, that its characters and ſynonyms are ſcarcely to be made out.

A. Sowerby del. Nov.r 1791

SERRATULA tinctoria.

Common Saw-wort.

SYNGENESIA Polygamia æqualis.

GEN. CHAR. *Calyx* nearly cylindrical, imbricated; ſcales not pungent.

SPEC. CHAR. Leaves ciliated, lyrato-pinnatifid; the terminal ſegment largeſt. Florets all alike.

SYN. Serratula tinctoria. *Linn. Sp. Pl.* 1144. *Hudſ. Fl. An.* 349. *With. Bot. Arr.* 865. *Relh. Cant.* 303.

Serratula. *Raii Syn.* 196.

THE root is perennial, and ſomewhat woody. Stem two or three feet high, angular. Lower leaves generally, and ſometimes all the leaves, undivided. The whole plant is firm, rigid, and harſh to the touch, but not prickly. The flowers are ſaid to be ſometimes white; but this is an uncommon circumſtance. This plant is not one of the moſt frequent: its uſual places of growth are graſſy paſtures in the neighbourhood of woods and thickets; ſometimes in hedges. Linnæus ſays, it is much uſed in Sweden as a yellow dye for coarſe woollen cloths; whence he gave it the name of *tinctoria*. Materials for that colour are ſo abundant, and moſt of them ſo ſuperior to this, that we believe it is never made uſe of in England.

J. Sowerby del. et sc. 1791

SAXIFRAGA aizoides.

Yellow Mountain Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* in five diviſions. *Cor.* of five petals. *Capſule* with two beaks, one cell, and many ſeeds.

SPEC. CHAR. Stem-leaves linear, ſcattered, generally edged with tooth-like ciliæ: radical ones aggregate. Stem decumbent.

SYN. Saxifraga aizoides. *Linn. Sp. Pl.* 576. *Hudſ. Fl. An. ed.* 1. 158.

S. autumnalis. *Hudſ. Fl. An. ed.* 2. 180. *Lightf. Fl. Scot.* 222. *With. Bot. Arr.* 433.

S. alpina anguſto folio, flore luteo guttato. *Raii Syn.* 353.

A NATIVE of alpine rills and moiſt rocks in a black boggy ſoil; in Scotland and the north of England very plentiful, flowering from June till the end of autumn. The roots creep very far: the ſtems are almoſt proſtrate in their lower part, and thickly covered with leaves; their flowering extremities grow erect, and the leaves on them are much more ſcattered, as well as larger. The leaves are edged with ſuch ſtrong and remote ciliæ, that they might almoſt be called dentated: theſe ciliæ are, nevertheleſs, ſometimes wanting, whence Linnæus deſcribes his *S. aizoides* as having naked, and not ciliated leaves. Even his own ſpecimen however (which is certainly the ſame ſpecies as ours) has traces of them; and, in fact, the number and denſity of theſe ciliæ are very variable. The flowers, which are terminal, and often form a kind of ſmall corymbus, are extremely beautiful when cloſely examined; thoſe that appear earlieſt are moſt deeply coloured.

Haller and Jacquin, and after them Lightfoot, ſuppoſe the Linnæan S. autumnalis not ſpecifically diſtinct from this plant; and Linnæus himſelf has thought the hint worth noticing in his Mantiſſa ii. p. 383. Unluckily, his own Herbarium has no ſpecimen to ſhew what he intended by S. autumnalis; and it appears he took up the plant from other authors. However this may be, the ſynonyms of Breynius and Moriſon quoted in Sp. Pl. certainly belong to S. Hirculus, and the reſt probably to our plant. Dr. Stokes's conjecture (Bot. Arr. 434) is perhaps neareſt the truth, that Linnæus's S. autumnalis is a ciliated variety of S. Hirculus.

We have endeavoured to make a new ſpecific character, tolerably applicable to the plant. We prefer the name of *aizoides*, becauſe it is undoubtedly right, as well as expreſſive; whereas that of *autumnalis* is not only, as above ſaid, uncertain, but improper for a plant that flowers during moſt part of the ſummer.

LINUM perenne.

Perennial Flax.

PENTANDRIA Pentagynia.

GEN. CHAR. *Calyx* five-leaved. *Petals* five. *Capſule* with five valves and ten cells. *Seeds* ſolitary.

SPEC. CHAR. Calyx and capſule bluntiſh. Leaves alternate, lanceolate, entire.

SYN. Linum perenne. *Linn. Sp. Pl.* 397. *Hudſ. Fl. An.* 133. *With. Bot. Arr.* 329. *Relh. Cant.* 130.
Linum ſylveſtre cæruleum perenne erectius, flore & capitulo majore, et
Linum ſylveſtre cæruleum perenne procumbens, flore & capitulo minore. *Raii Syn.* 362.

WE truſt to the authority of Mr. Hudſon, and the above-mentioned authors who have copied him, in making theſe two plants of Ray's Synopſis varieties of each other. Ray himſelf hints that he thought them ſuch; and Hudſon aſſerts he has gathered both from the ſame root; adding, that in the procumbent variety the ſtamina are ſhorter than the ſtyles, in the erect one longer.

Linum perenne is found in the dryeſt chalk ſoil of Northamptonſhire, Cambridgeſhire, and Norfolk. Its ſtrong and knobbed woody root produces a multitude of ſlender ſtems, about a foot long, ſpreading in every direction, but more or leſs curved upward. Its flowers appear from June to Auguſt; they are of a delicate texture, and very elegant blue colour. The calyx, as Dr. Stokes obſerves, is quite ſmooth, and each of its leaves marked with five ribs; the middlemoſt of which is the ſtrongeſt.

J. Sowerby del. & sc. 1791.

MELAMPYRUM criſtatum.

Creſted Cow-wheat.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compreſſed, turned back at the margin. *Capſule* two-celled, oblique, burſting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Spikes quadrangular. Bracteæ heart-ſhaped, imbricated, compact, denticulated.

SYN. Melampyrum criſtatum. *Linn. Sp. Pl.* 842. *Hudſ. Fl. An.* 269. *With. Bot. Arr.* 638. *Relh. Cant.* 240.

Melampyrum criſtatum, flore albo & purpureo. *Raii Syn.* *286.

COMMUNICATED from Madingley wood, Cambridgeſhire, by the Rev. Mr. Sutton.

The ſpecies of this genus, although for the moſt part remarkably elegant when living, are equally remarkable for turning black or brown in drying, ſo that they make a very poor appearance in a hortus ſiccus. The kind here figured grows in the borders of woods, or in corn-fields. Its root is annual; ſtem very much branched and buſhy. The ſpikes of flowers are very ornamental, though leſs ſo than thoſe of ſome other ſpecies. The corolla is occaſionally purpliſh, or white marked with yellow and purple. The ſeeds of this genus have a remarkable reſemblance to grains of wheat; on which account, we prefer the old Engliſh name to that of *Cow-graſs*, given by Dr. Stokes.

CAMPANULA patula.

Spreading Bell-flower.

PENTANDRIA Monogynia.

GEN. CHAR. *Corolla* bell-ſhaped, cloſed at the bottom by valves bearing the ſtamina. *Stigma* three-cleft. *Capſule* inferior, opening by lateral pores.

SPEC. CHAR. Leaves ſtraight; the radical ones nearly oval. Panicle ſpreading. Calyx denticulated.

SYN. Campanula patula. *Linn. Sp. Pl.* 232. *Hudſ. Fl. An.* 95. *With. Bot. Arr.* 216.

ONE of the rareſt Engliſh plants, gathered at Cobham in Surry, in the park of the late Lord Ligonier, by Dr. Smith. Mr. Woodward found it in the borders of Buddon wood, Leiceſterſhire; not in the wood itſelf, as has been commonly reported.

The root is biennial, ſlender, and white. Radical leaves growing many together, ſpreading, ſmall, roundiſh, or oval, ſoon turning yellowiſh; thoſe on the ſtem lanceolate, ſtraight, and even; not undulated, as in Campanula Rapunculus. The panicle is alſo much more ſpreading than in that ſpecies, and the bloſſoms fewer. The flowers appear in July; and as the herb, though milky and bitter, is frequently eaten down by cattle, ſide branches ſpring up, and flower till the winter froſts deſtroy the root. The corolla is of an elegant form, tapering at the baſe, but ſpreading in the rim. This ſpecies has no kind of affinity with the common C. rotundifolia; ſome of whoſe varieties, when their radical leaves are loſt, have been occaſionally miſtaken for it. It eſcaped the notice of Ray, but is admirably figured by Dillenius in his Hortus Elthamenſis, tab. lviii. f. 68.

PAPAVER hybridum.

Mongrel Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Calyx* two-leaved. *Corolla* of four petals. *Capſule* one-celled; diſcharging its ſeeds by pores under the ſtigma.

SPEC. CHAR. Capſules nearly globular, with a very unequal ſurface, briſtly. Stem leafy, many-flowered.

SYN. Papaver hybridum. *Linn. Sp. Pl.* 725. *Hudſ. Fl. An.* 230. *With. Bot. Arr.* 550. *Relh. Cant.* 202.

Papaver laciniato folio, capitulo hiſpido rotundiore. *Raii Syn.* 308.

GATHERED in the neighbourhood of Dartford by Mr. Lewin, and near Norwich by Mr. Pitchford. It is occaſionally met with here and there in cultivated ground, but never in any great quantity. It has a ſmall annual root, and flowers in the middle of ſummer. The ſtem is weak, much branched, and ſpreading; the diviſions of the leaves linear, and very narrow; flowers ſmall, deep crimſon, or purpliſh; pollen bright blue. The briſtles of the germen are erect, and nearly as large and ſtrong as on the ripe capſule; but on the latter they ſtand out in every direction, being only a little curved upwards.

J. Fawcett del.t Edn.a 1790

GENISTA tinctoria.

Dyer's Greenweed.

DIADELPHIA Decandria.

GEN. CHAR. *Calyx* two-lipped, with two teeth in the upper lip, and three in the lower. *Standard* oblong, bent backwards from the reſt of the flower.

SPEC. CHAR. Leaves lanceolate, ſmooth. Branches round, ſtriated and erect.

SYN. Geniſta tinctoria. *Linn. Sp. Pl.* 998. *Hudſ. Fl. An.* 311. *With. Bot. Arr.* 758. *Relh. Cant.* 269. *Raii Syn.* 474.

IN paſtures and on dry barren banks in the borders of fields very frequent. When in flower in the months of July and Auguſt, it entirely clothes the places where it abounds with a rich glowing yellow. The root creeps very far, and throws up a great number of ſtems, very much branched, one or two feet high. The branches are ſo ſtrongly ſtriated that they might almoſt be called angular, or rather furrowed. Ray obſerves in his Synopſis, that this plant is but too frequent in paſtures, as it gives a bitter taſte to the milk of cows which feed upon it. He adds, that the whole plant dyes a yellow colour, which by means of woad is afterwards made green; and Dr. Withering ſays the dyers prefer it to all other yellows for wool that is to be dyed green.

The ſeeds, in this ſpecies at leaſt, are generally numerous, ſcarcely ever ſolitary, as deſcribed in the Genera Plantarum.

Anchusa sempervirens.

ANCHUSA ſempervirens.

Evergreen Alkanet.

PENTANDRIA Monogynia.

GEN. CHAR. *Corolla* funnel-ſhaped: its orifice cloſed with valves. *Seeds* hollowed out at the baſe.

SPEC. CHAR. Flower-ſtalks axillary, bearing little heads of flowers, accompanied by two leaves.

SYN. Anchuſa ſempervirens. *Linn. Sp. Pl.* 192. *Huds. Fl. An.* 80. *With. Bot. Arr.* 191. *Relh. Cant.* 77. Bugloſſum latifolium ſemper virens. *Raii Syn.* 227.

NO plant can be more common than this is in waſte ground in and about Norwich; throughout moſt other parts of England it is rarely met with. The firſt flowers appear in May, and are followed by a long ſucceſſion of others. They are beautiful in their form and colour when cloſely examined, otherwiſe the plant is of an unſeemly appearance; it is always, however, in leaf, and has from thence obtained the name of *ſempervirens*, though perfectly herbaceous, and not at all ſhrubby. Its habit and generic characters approach nearly to thoſe of Myoſotis, the corolla being rather ſalver-ſhaped, than of the true funnel form of other ſpecies of Anchuſa.

The leaves are very rough; the juices of the plant mucilaginous, as in others of this tribe. We do not know of its being applied to any uſe.

BALLOTA nigra.

Black Horehound.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Calyx* nearly ſalver-ſhaped, with five teeth and ten ribs. *Upper lip* of the *Corolla* concave, notched.

SPEC. CHAR. Leaves heart-ſhaped, undivided, ſerrated. Diviſions of the calyx tapering gradually to a point.

SYN. Ballota nigra. *Linn. Sp. Pl.* 814. *Hudſ. Fl. An.* 260. *With. Bot. Arr.* 615. *Relh. Cant.* 231.
Ballotte. *Raii Syn.* 244.

ABUNDANT every where in hedges and waſte ground, flowering throughout the ſummer very copiouſly. The whole herb has an uncommonly pungent diſagreeable ſmell, and therefore promiſes to be uſeful in hyſteric and other nervous diſorders. Accordingly we find a decoction of it recommended for ſuch complaints in Ray's Synopſis.

The flowers are occaſionally found white; and that variety has been miſtaken by Mr. Hudſon and others for the Ballota alba of Linnæus, which laſt we believe has never been found in England. It exiſts, however, in the Linnæan Herbarium, and will ſome time or other be figured by Dr. Smith, in his *Plantarum Icones*.

OPHRYS Loeſelii.

Dwarf Ophrys.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* conſiſting of a lip only, ſlightly carinated at the back.

SPEC. CHAR. Bulb oval. Stalk naked, triangular. Lip roundiſh, concave, undivided. Petals linear. Leaves ovato-lanceolate.

SYN. Ophrys Loeſelii. *Linn. Sp. Pl.* 1341. *With. Bot. Arr.* 988.

O. lilifolia. *Relh. Cant.* 337. *Hudſ. Fl. An.* 390. β.

Pſeudo-Orchis bifolia paluſtris. *Raii Syn.* 382.

RAY has mentioned this plant as the production of ſome moors in the neighbourhood of Cambridge: but thoſe moors were long ſearched for it in vain by ſucceeding botaniſts, till the Rev. Mr. Relhan diſcovered it a very few years ago, growing, not very ſparingly, where Ray has reported. This gentleman attributes its remaining ſo long latent, to its uſual ſituation cloſe to the ſtems of ruſhes. To him we are obliged for the plant we have figured. Mr. Pitchford many years ago found, in a meadow at St. Faith's, near Norwich, one ſingle ſpecimen, which he afterwards preſented to the Rev. Mr. Lightfoot.

A confuſion, which originated with Linnæus, has long exiſted between this plant and his Ophrys lilifolia. We can aſſure the public, on the authority of his herbarium, that the latter is only found in America, and that the Europæan ſynonyms, which he has in ſeveral parts of his works applied to that ſpecies, really belong to ours. See ſeveral very good obſervations on this ſubject in the Botanical Arrangement, from Mr. Woodward and Dr. Stokes.

OPHRYS Nidus avis.

Bird's-neſt Ophrys.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* conſiſting of a lip only, ſlightly carinated at the back.

SPEC. CHAR. Bulbs in the form of fleſhy cluſtered fibres. Stem clothed with ſcaly ſheaths, without leaves. Nectary cloven.

SYN. Ophrys Nidus avis. *Linn. Sp. Pl.* 1339. *Hudſ. Fl. An.* 388. *With. Bot. Arr.* 983. *Relh. Cant.* 336.

Nidus avis. *Raii Syn.* 382.

THIS ſingular ſpecies of Ophrys, whoſe habit ſo nearly approaches the genus Orobanche, is probably like that genus paraſitical. It is rather an unfrequent inhabitant of woods and thickets among decayed leaves, flowering in the early part of ſummer, and cannot be made to grow in a garden. Dr. Smith has found it in Norfolk, and it is often met with in Kent.

Its hue of ſober brown is the oppoſite of the uſual gaiety and brilliancy of the vegetable kingdom: but the ſcientific obſerver will conſider it with admiration, as a plant whoſe appearance and economy are extremely ſingular; and the ſyſtematic botaniſt will cheriſh it as an important link in Nature's chain, combining ſeveral apparently diſcordant tribes.

Berberis vulgaris.

BERBERIS vulgaris.

Common Barberry. ☉

HEXANDRIA Monogynia.

GEN. CHAR. *Calyx* ſix-leaved. *Petals* ſix, with two glands at their baſe. *Style* none. *Berry* with two ſeeds.

SPEC. CHAR. Flowers in cluſters. Spines three-forked. Serratures of the leaves terminated by ſoft briſtles.

SYN. Berberis vulgaris. *Linn. Sp. Pl.* 471. *Hudſ. Fl. An.* 137. *With. Bot. Arr.* 366. *Relh. Cant.* 134.

B. dumetorum. *Raii Syn.* 465.

COMMON in hedges, flowering in June, and bearing its bright red pendulous berries in autumn. It is generally planted in ſhrubberies for ornament as well as uſe, the fruit being frequently introduced into pickles and preſerves, on account of its ſtrong and grateful acidity, of which the leaves alſo partake with a mixture of aſtringency.

Two circumſtances in the hiſtory of this ſhrub deſerve particular attention. In the firſt place, its ſtamina exhibit perhaps the moſt remarkable inſtance of irritability hitherto diſcovered in vegetables; becauſe we perceive at once the purpoſe it is intended to anſwer. The baſes of the filaments are ſo ſenſible to the touch of any extraneous body, that they immediately contract, with precipitation, and throw the pollen on the ſtigma; and this contraction is capable of being repeated ſeveral times. See Mr. Whately's remark in the *Bot. Arr.* and Dr. Smith's paper in the Philoſophical Tranſactions for 1788, p. 158.

The other circumſtance to which we allude is, its reputed hoſtility to corn, the ears of which, in its neighbourhood, are ſaid always to prove abortive. This, if true, is one of the moſt wonderful properties that any plant ever poſſeſſed, and is totally unaccountable. We have it on ſuch good authority, that we could not avoid mentioning the report; but on the other hand we have as good reaſons for withholding our aſſent. Monſ. Brouſſonet, the celebrated French naturaliſt, who has bent his attention particularly to agriculture, aſſures us this report, equally prevalent in France and in England, is, from his own obſervation, totally void of foundation. It is to be wiſhed ſome ſcientific obſerver could trace out what occaſioned the opinion.

LATHRÆA Squamaria.

Greater Tooth-wort.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Calyx* four-cleft. A depreſſed *gland* at the baſe of the ſuture of the germen. *Capſule* of one cell.

SPEC. CHAR. Stem perfectly ſimple. Flowers pendulous; their lower lip three-cleft.

SYN. Lathræa Squamaria. *Linn. Sp. Pl.* 844. *Hudſ. Fl. An.* 266. *With. Bot. Arr.* 642.

Anblatum Cordi ſive Aphyllon. *Raii Syn.* 288*.

GATHERED by the Earl of Gainſborough, in the neighbourhood of his Lordſhip's ſeat at Exton, near Stamford. The flowers appear in April, emerging from decayed leaves of trees, among which the plant is moſtly found half buried. The root is paraſitical, and is generally attached to the roots of elms, haſels, or ſome other tree, in a ſhady ſituation.

Having lately (tab. 48.) given a figure of the Ophrys Nidus avis, we now exhibit the preſent plant as another of thoſe connecting links which combine ſome families of vegetables in many reſpects differing widely from each other. By theſe two ſpecies we can trace a line of affinity between the *Didynamia Angioſpermia* of Linnæus, and the natural order of *Orchideæ*.

The name *Tooth-wort* is derived from the reſemblance of the ſcaly roots of this plant to the human fore-teeth; for which reaſon it *muſt* be good for the tooth-ach,

"As wiſe philoſophers have judg'd!"

ANEMONE Pulſatilla.

Paſque Flower.

POLYANDRIA Polygynia.

GEN. CHAR. *Calyx* none. *Petals* ſix or nine. *Seeds* many.

SPEC. CHAR. Flower ſolitary, with an involucrum on its ſtalk. Petals erect. Seeds with tails. Leaves bipinnate, cut.

SYN. Anemone Pulſatilla. *Linn. Sp. Pl.* 759. *Hudſ. Fl. An.* 236. *Relh. Cant.* 208. fig. *With. Bot. Arr.* 565.

Pulſatilla folio craſſiore & majore flore. *Raii Syn.* 260.

PLENTIFUL in high chalky paſtures in ſeveral parts of England, eſpecially about Newmarket heath; from whence our ſpecimen was taken. It is a plant of great beauty, and thrives well in a garden on a dry ſoil. The flowers appear early in May. The ſilvery plumes of the ſeeds which ſucceed them are likewiſe a beautiful object.

The herb is ſo acrid as to bliſter the ſkin, like ſome ſpecies of Ranunculus; but ſuch bliſters are far more difficult to heal than thoſe raiſed by Spaniſh flies. Goats eat it, as they do many other acrid vegetables.

The foreign ſpecies of Anemone are but ill underſtood, though our four Britiſh ones are ſufficiently diſtinguiſhable.

Iberis amara.

IBERIS amara.

Bitter Candy tuft.

TETRADYNAMIA Siliculoſa.

GEN. CHAR. *Corolla* irregular, the two extended petals being the largeſt. *Pouch* with many ſeeds, notched.

SPEC. CHAR. Stem herbaceous. Leaves lanceolate, pointed, a little indented. Flowers racemoſe.

SYN. Iberis amara. *Linn. Sp. Pl.* 906. *Hudſ. Fl. An.* 285. *With. Bot. Arr.* 682.

BROUGHT from the fields about Wallingford, Berkſhire, where it is very common, in July laſt, by Dr. Smith. The ſtems are diffuſe, numerous, and each terminated by a racemus or ſpike of flowers, which are copious, and of a bright unſpotted white, ſo as to be very conſpicuous at a diſtance. The beauty of this plant has indeed procured it a place in our gardens among other hardy annuals, where it grows much more luxuriantly than on its native chalky ſoil. The whole herb is nauſeouſly bitter, as are ſeveral others of this genus.

Melampyrum arvense.

MELAMPYRUM arvenſe.

Purple Cow-wheat.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compreſſed, turned back at the margin. *Capſule* two-celled, oblique, burſting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Spikes conical, looſe. Bracteas fringed with narrow taper teeth.

SYN. Melampyrum arvenſe. *Linn. Sp. Pl.* 842. *Hudſ. Fl. An.* 270. *With. Bot. Arr.* 638. *Dickſon's Dried Plants, No.* 74.

M. purpuraſcente coma. *Raii Syn.* * 286.

THIS, though a rare plant, occurs occaſionally in corn-fields in ſeveral parts of England, flowering in July and Auguſt. Our ſpecimen came from Coſteſy, near Norwich, and was obligingly communicated by Mr. Pitchford. Few flowers excel it in beauty; nor is it much inferior in this reſpect to the Melampyrum nemoroſum, of which Linnæus obſerves, with a kind of triumph, that it grows in Sweden, though not in England. We are ſcarcely, indeed, worthy to poſſeſs the M. arvenſe; for its charms, however ſtriking, have never procured it admiſſion into a flower-garden, though it may eaſily be raiſed from freſh ſeed on a dry gravelly ſoil. The root is annual. The ſeeds reſemble very much grains of wheat.

II

Chrysosplenium alternifolium.

CHRYSOSPLENIUM alternifolium.

Alternate-leaved Golden Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Calyx* four or five-cleft, coloured. *Corolla* none. *Capſule* with two beaks, one cell, and many ſeeds.

SPEC. CHAR. Leaves alternate.

SYN. Chryſoſplenium alternifolium. *Linn. Sp. Pl.* 569. *Hudſ. Fl. An.* 179. *With. Bot. Arr.* 404. Saxifraga aurea foliis pediculis oblongis inſidentibus. *Raii Syn.* 158.

THE favourite ſituation of this plant is a black boggy ſoil on the margins of little rills in wet ſhady woods, where it is, though rarely, found, intermixed generally with the more common ſpecies of Chryſoſplenium, which has oppoſite leaves. Both are conſpicuous for their yellow hue, which diſcovers them at a diſtance. They flower early in May, and are perennial.

This ſpecies is the more ſtriking of the two, being rather the largeſt. Its leaves are always alternate, one of them ſtanding ſolitary about the middle of the ſtem, which is triangular; the reſt are cluſtered, partly about the root, and partly near the flowers. The terminal or central flower is not ſo regularly five-cleft as to juſtify Linnæus in placing this genus in *Decandria* inſtead of *Octandria*, according to his principle in Philoſophia Botanica, *ſect.* 178. Dr. Stokes, therefore, removes it to the 8th claſs. We retain it in its old place for the convenience of thoſe who uſe Linnæus's works, and eſpecially on account of its near affinity to Saxifraga.

CUSCUTA Europæa.

Greater Dodder.

TETRANDRIA Digynia.

GEN. CHAR. *Calyx* four-cleft. *Corolla* of one petal. *Capſule* two-celled.

SPEC. CHAR. Flowers ſeſſile, moſtly four-cleft.

SYN. Cuſcuta Europæa. *Linn. Sp. Pl.* 180. *With. Bot. Arr.* 165.

C. major. *Raii Syn.* 281.

OF all paraſitical plants, the Dodder tribe are the moſt ſingular, truſting for their nouriſhment entirely to thoſe vegetables about which they twine, and into whoſe tender barks they inſert ſmall villous tubercles ſerving as roots, the original root of the Dodder withering away entirely as ſoon as the young ſtem has fixed itſelf to any other plant, ſo that its connexion with the earth is cut off.

The ſpecies of Cuſcuta are very ill underſtood. Notwithſtanding the doubts of Dr. Stokes in the *Bot. Arr.* whether the true Linnæan C. *Europæa* was ever found in England (the C. *Epithymum*, which has five-cleft flowers, being the moſt frequent), we think there can be no doubt of its being our plant. This ſpecimen was gathered on the common heath, *Erica vulgaris*, on One-tree-hill at Greenwich. The flowers are generally found with 4 diviſions, rarely occurring with 5. It may be met with plentifully in flower in July and Auguſt.

CENTAUREA Scabioſa.

Greater Knapweed.

SYNGENESIA Polygamia fruſtranea.

GEN. CHAR. *Receptacle* briſtly. *Seed-wing* ſimple. *Corollæ* of the radius funnel-ſhaped, irregular, longer than thoſe of the diſk.

SPEC. CHAR. Scales of the calyx fringed. Leaves pinnatifid, their ſegments lanceolate.

SYN. Centaurea Scabioſa. *Linn. Sp. Pl.* 1291. *Hudſ. Fl. An.* 376. *With. Bot. Arr.* 945. *Relh. Cant.* 326. Jacea major. *Raii Syn.* 198.

THE root is perennial. Stem about two feet high, erect, alternately branched, leafy, bearing at the end of each branch a ſolitary flower, the ſcales of whoſe calyx are triangular, acute, and ciliated or rather pectinated in the margin.

The greater knapweed grows throughout England, more rarely in Scotland, in the borders of fields, in meadows, by road-ſides, and ſometimes among corn, flowering in July and Auguſt. Ray ſays the flowers are ſometimes white. We do not know of its being applied to any œconomical uſe. Small birds eat the ſeeds in winter. The permanent calyx in time becomes reflexed, and is very conſpicuous at a diſtance, being of a moſt beautiful ſilvery hue.

Eryngium campestre.

ERYNGIUM campeſtre.

Field Eryngo.

PENTANDRIA Digynia.

GEN. CHAR. *Flowers* in little denſe heads. *Receptacle* ſcaly.

SPEC. CHAR. Leaves embracing the ſtem, divided in a pinnated manner.

SYN. Eryngium campeſtre. *Linn. Sp. Pl.* 337. *Hudſ. Fl. An.* 110. *With. Bot. Arr.* 264.

E. vulgare. *Raii Syn.* 222.

ALTHOUGH very common on the continent, and therefore denominated *vulgare* by Bauhin, Camerarius, &c. this ſpecies is ſo very rare in England, that we cannot follow thoſe Britiſh authors, however reſpectable, who name it *common Eryngo*. We are aſſured by the Rev. Mr. Wood, of Leeds, that it ſtill grows by the Watling-ſtreet road, oppoſite Brook-hall, near Daventry, as mentioned by Ray. Our figure was drawn from a garden ſpecimen compared with a wild one, with which it perfectly agreed.

The root is perennial and ſtrong. Stem a foot high, much branched. The whole plant very rigid, and of a pale green. It flowers in July and Auguſt. The petals are white or purplish.

310.

Verbascum
Lychnitis.

VERBASCUM Lychnitis.

White Mullein.

PENTANDRIA Monogynia.

GEN. CHAR. *Corolla* wheel-ſhaped, a little irregular. *Capſule* with one cell, and two valves.

SPEC. CHAR. Leaves oblong-wedge-ſhaped, nearly ſmooth on the upper ſide.

SYN. Verbaſcum Lychnitis. *Linn. Sp. Pl.* 253. *Hudſ. Fl. An.* 90. *With. Bot. Arr.* 225 β.

V. flore albo parvo. *Raii Syn.* 287.

GATHERED in lanes about Dartford in Kent, flowering in June. It loves a chalky ſoil, and is moſt frequent in that county.

Our ſpecimens agree preciſely with that in the Herbarium of Linnæus, which we learn, from certain marks and numbers, to be what he intended in the 1ſt edition of *Species Plantarum* for V. Lychnitis, though even in that work he ſeems to reckon our hoary yellow Mullein as the original ſpecies, making the white a variety.

This Mullein is remarkable for its ſtraight, wand-like, angular ſtem; its leaves very white beneath, but green with a ſlight hoarineſs above; and its cream-coloured flowers, which are produced in great numbers in a compound, cluſtered, terminal racemus, one of the lateral branches of which is all our figure would admit.

The yellow hoary Mullein is ſurely a very diſtinct ſpecies, its leaves being, on both ſides, covered with thick wool—not to mention other differences.

Verbascum nigrum.

VERBASCUM nigrum.

Dark Mullein.

PENTANDRIA Monogynia.

GEN. CHAR. *Corolla* wheel-ſhaped, a little irregular. *Capſule* with one cell, and two valves.

SPEC. CHAR. Leaves oblong-heart-ſhaped, on footſtalks.

SYN. Verbaſcum nigrum. *Linn. Sp. Pl.* 253. *Hudſ. Fl. An.* 90. *With. Bot. Arr.* 226. *Relh. Cant.* 88.

V. nigrum flore parvo, apicibus purpureis. *Raii Syn.* 288.

BY what figure of ſpeech this beautiful plant can be called *black*, not having a particle of that colour about it, we will not determine. All the old botaniſts, however, have ſo denominated it; and if they had any meaning, it can only have been that it was *not white*.

Its dark-green leaves are ſometimes hoary beneath, eſpecially the upper ones. The racemus of flowers is longer and more ſimple than in moſt of the other ſpecies. Nothing can be more elegant than the purple ſtamina contraſted with the yellow corolla.

This ſpecies loves a gravelly ſoil, and is not rare in Norfolk and Suffolk. It is very conſpicuous at a diſtance under hedges in green ſhady lanes, to which it is a great ornament. The flowers appear about Midſummer, and laſt till September. The root is perennial.

Chlora perfoliata

CHLORA perfoliata.

Yellow Centaury.

OCTANDRIA Monogynia.

GEN. CHAR. *Calyx* eight-leaved. *Corolla* in eight ſegments. *Capſule* with one cell, two valves, and many ſeeds. *Stigma* four-cleft.

SPEC. CHAR. Leaves perfoliate.

SYN. Chlora perfoliata. *Linn. Syſt. Nat. ed.* 12. *v.* 2. 267. *Hudſ. Fl. An.* 168. *With. Bot. Arr.* 392. *Relh. Cant.* 157.

Centaurium luteum perfoliatum. *Raii Syn.* 287.

A Chalky or lime-ſtone ſoil generally produces this plant in ſeveral parts of England, eſpecially in open, hilly ſituations; as Cambridgeſhire, Worceſterſhire, about Briſtol Hot-wells, and the chalky parts of Norfolk and Suffolk. It does not thrive well in a garden, and though rather impatient of cold, yet if ſheltered, it becomes mildewed. The root is annual; the whole plant generally very glaucous, and ſomewhat ſucculent, very bitter to the taſte. Its bright and elegant flowers appear in July and Auguſt.

Thoſe who have placed Chlora in the order *Digynia* are undoubtedly miſtaken, as the ſtyle is really ſimple, though the ſtigma be 4-cleft, which laſt is the moſt eſſential diagnoſtic of the genus.

DIANTHUS deltoides.

Maiden Pink.

DECANDRIA Digynia.

GEN. CHAR. *Calyx* cylindrical, of one leaf, with about four ſcales at the baſe. *Petals* five, furniſhed with claws. *Capſule* cylindrical, one-celled.

SPEC. CHAR. Flowers ſolitary. Two lanceolate ſcales only to each calyx. Corolla notched.

SYN. Dianthus deltoides. *Linn. Sp. Pl.* 588. *Hudſ. Fl. An.* 184. *With. Bot. Arr.* 441. *Relh. Cant.* 167. Caryophyllus minor repens noſtras. *Raii Syn.* 335.

FOUND on ſandy banks and heaths in various parts of England, growing proſtrate among graſs and other herbs, for want of the natural ſhelter of which in a garden, it is not eaſily cultivated. It begins flowering in July, and laſts till very late in autumn. The petals vary much in colour, being ſometimes of a very pale fleſh colour, ſometimes deep red, but are always marked with a ring of deeper red dots, near the centre of the flower.

Mr. Hudſon's variety β has white flowers, with a beautiful purple ring, and leaves rather more glaucous than in the common kind here figured. That variety is the true Dianthus glaucus of Linnæus, and perhaps of Lightfoot, which, though common in gardens, we have never yet met with wild in England. It ſeems, however, no more than a variety. It has indeed generally four ſcales to the calyx, and ſo has frequently D. deltoides. Mr. Hudſon's D. glaucus is a very different plant, ſee *tab.* 62.

Dianthus cæsius.

DIANTHUS cæſius.

Mountain Pink.

DECANDRIA Digynia.

GEN. CHAR. *Calyx* cylindrical, of one leaf, with about four ſcales at the baſe. *Petals* five, furniſhed with claws. *Capſule* cylindrical, one-celled.

SPEC. CHAR. Stems moſtly ſingle-flowered. Scales of the calyx roundiſh and ſhort. Petals notched, bearded. Leaves rough in the margin.

SYN. Dianthus virgineus β. *Linn. Sp. Pl.* 590.
D. glaucus. *Hudſ. Fl. An.* 185.
Armeriæ ſpecies flore in ſummo caule ſingulari. *Rait Syn.* 336.

WE believe this plant has never yet been found in any part of Great-Britain, except on Chedder rocks, Somerſetſhire, where it was gathered in Ray's time by Mr. Brewer, and ſince by the Rev. Mr. Lightfoot, and ſome other botaniſts. The flowers appear in July, and are highly fragrant.

The whole hiſtory of this ſpecies in Engliſh writers is a heap of confuſion. Dr. Stokes alone has formed any tolerable conjectures on the ſubject. The error originated with Linnæus, who quoted Dillenius's excellent figure (*Hort. Elth. t.* 298, *f.* 385.) as a variety of his D. virgineus, with which it has no affinity. Mr. Hudſon unluckily increaſed the confuſion, by taking it for D. glaucus. We are happy to clear up the point by means of wild and original ſpecimens, and to give, from Dr. Smith's manuſcripts, a new ſpecific character, which, if attended to, will be found abundantly ſufficient to diſtinguiſh this from every other Dianthus hitherto known. The trivial name *cæſius* is taken from the character given by Dillenius, and alludes to the blueiſh green of the leaves.

The roots are woody and perennial, and thrive beſt in a dry or ſomewhat ſandy ſoil.

TULIPA ſylveſtris.

Wild Tulip.

HEXANDRIA Monogynia.

GEN. CHAR. *Corolla* of ſix petals, bell-ſhaped. *Style* none.

SPEC. CHAR. Flower ſolitary, ſomewhat drooping. Leaves lanceolate. Stigma obtuſe, triangular. Stamina hairy near the baſe.

SYN. Tulipa ſylveſtris. *Linn. Sp. Pl.* 438. *Fl. Suec. N.* 284.

NO writer on Britiſh plants has hitherto noticed the wild Tulip; but we are encouraged to give it as a native, or at leaſt a naturalized ſpecies, by the obſervations of W. Mathew, Eſq. who favoured us with this ſpecimen from an old chalk-pit near Bury; as well as by the opinion of the late very accurate and learned Mr. Roſe of Norwich, and of Dr. Smith, who have both found it in a chalk-pit near that city. It grows in a bed of good mould, above the chalk, the roots lying ſeveral inches below the ſurface, and flowers in April.

The circumſtances moſt remarkable about this ſpecies, and which abundantly diſtinguiſh it from the garden Tulipa Geſneriana, are the narrow leaves, the nodding flower, the hairineſs at the baſe of the ſtamina, and on the tips of the petals, and eſpecially the ſimple obtuſe form of the ſtigma, which is totally different from that of the garden tulip. The flower too is fragrant, and the pollen yellow, not black. The antheræ are remarkably long. In *Flora Danica*, *t.* 375, they are repreſented ſhort and round. Linnæus has given an excellent conciſe hiſtory of this plant, in his Flora Suecica above quoted.

OPHRYS muſcifera.

Fly Orchis.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* conſiſting of a lip only, ſlightly carinated at the back.

SPEC. CHAR. Bulbs roundiſh. Stem leafy. Lip ſomewhat convex, downy above, in four ſtraight diviſions.

SYN. Ophrys muſcifera. *Hudſ. Fl. An.* 391. *Relh. Cant.* 339.

O. myodes. *With. Bot. Arr.* 992.

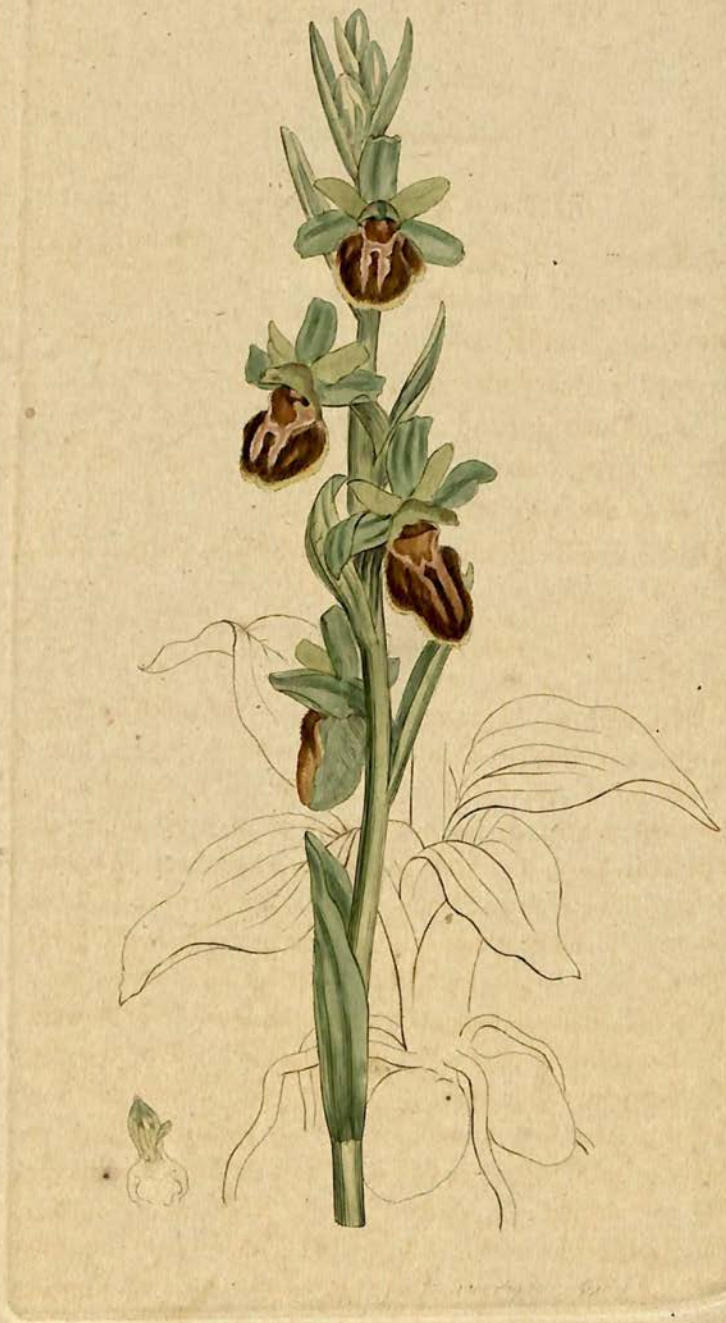
O. inſectifera α (myodes). *Linn. Sp. Pl.* 1343.

O. myodes major. *Raii Syn.* 379.

FOUND in meadows and paſtures on a chalky ſoil, but not very common. It is moſt plentiful in Kent and Cambridgeſhire, and has alſo been gathered near Tacolneſtone church in Norfolk, and about Bungay in Suffolk; flowering in May and June.

No wonder the fly, the bee, and the ſpider orchis ſhould have engaged the attention of all who were curious about plants. Their ſingularity and beauty are almoſt unrivalled. Linnæus, miſled by the variations to which ſome of this tribe are really ſubject, has perhaps too raſhly eſteemed all thoſe which reſemble inſects, as forming only one ſpecies. Yet ſurely nothing can be more diſtinct than the kind here figured, nor is any one more conſtant, not only in form, but even in colour.

Dr. Stokes is certainly right in his judgment concerning the trivial name of this plant (*Bot. Arr.* 992); but in unimportant matters ſtrict propriety is ſometimes obliged to give way to common cuſtom.



OPHRYS aranifera.

Spider Orchis.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* conſiſting of a lip only, ſlightly carinated at the back.

SPEC. CHAR. Bulbs roundiſh. Stem leafy. Lip roundiſh, convex, hairy above, in three diviſions, turned in at the margin, and notched at the tip.

SYN. Ophrys aranifera. *Hudſ. Fl. An.* 392. *With. Bot. Arr.* 994. *Relh. Cant.* 340.

Orchis ſive Teſticulus ſphegodes hirſuto flore. *Raii Syn.* 380.

THIS, with us the moſt uncommon of the inſect-bearing Orchiſes, was gathered near Bury by Sir T. G. Cullum, Bart. as well as by W. Matthew, Eſq. and we are obliged to both theſe gentlemen for fine ſpecimens of it, flowering in April. Mr. Jacob Rayer, of Bolt-court, Fleet-ſtreet, to whom we have likewiſe been indebted for a ſpecimen of Lathræa Squamaria found near London, brought us the Spider Ophrys from Kent. It is alſo found in Cambridgeſhire, always on a chalky ſoil, and varying much as to the number of flowers. This more nearly approaches the Bee Orchis than the Fly, but eſſentially differs from it in having the great middle lobe of the nectary ſimply notched, and not ending in three recurved points; beſides its flowering two or three months earlier, and having the column of the fructification thicker, ſhorter, and of a different figure, when accurately compared with the other ſpecies. The Ophrys arachnites of Linnæus appears, from his herbarium, to be a different plant from ours, having a lip more like that of the apifera.

PAPAVER cambricum.

Yellow Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Calyx* two-leaved. *Corolla* of four petals. *Capſule* one-celled; diſcharging its ſeeds by pores under the ſtigma.

SPEC. CHAR. Capſules ſmooth, oblong. Stem many-flowered, ſmooth. Leaves pinnated, jagged.

SYN. Papaver cambricum. *Linn. Sp. Pl.* 727. *Hudſ. Fl. An.* 231. *With. Bot. Arr.* 553.

P. luteum perenne, laciniato folio, Cambrobritannicum. *Raii Syn.* 309.

SAID to be very common on the Welch mountains, and not unfrequent in Weſtmoreland. Dr. Smith has gathered it about Kendal and Kirkby-Lonſdale, in ſtony, moiſt, and ſhady places. With his wild ſpecimens we have compared that here figured; for which we are obliged to the Rev. Dr. Goodenough, who favoured us with it from his garden. Dillenius, in his excellent hiſtory of this plant (*Hort. Elth.* 301, *t.* 223), aſſerts, that it becomes larger and leſs glaucous by culture: but we are aſſured it is often full as luxuriant in its native ſoil; which indeed is generally the caſe with the vegetable productions of rich or moiſt alpine ſituations.

The root is perennial; the flowers laſt from June to the middle of Auguſt. The whole plant is of a tender, pale, and ſomewhat ſucculent habit, not unlike the Celandine, but more delicate.

CORIANDRUM *ſativum.*

Coriander.

PENTANDRIA Digynia.

GEN. CHAR. *Corolla* radiate; *petals* inflexed, cloven. *General Involucrum* of one leaf; *partial ones* going but half way round. *Fruit* ſphærical.

SPEC. CHAR. The two ſeeds combining to make one uniform globe.

SYN. Coriandrum ſativum. *Linn. Sp. Pl.* 367. *Hudſ. Fl. An.* 123. *With. Bot. Arr.* 302.
Coriandrum. *Raii Syn.* 221.

CORIANDER is ſuppoſed to be a native of the ſouth of Europe, and, from having been cultivated in England as a medicinal plant, to have become naturalized in ſome parts of the kingdom, particularly in fields about Ipſwich.

The root is annual; lower leaves lobed and cut; upper ones in very fine linear alternate ſegments; flowers white or reddiſh, appearing in June; and the ſeeds are ripe in July and Auguſt. The aromatic flavour of the latter is agreeable to moſt palates; and we are obliged to Dr. Withering, for reſcuing them from the charge of unwholeſomeneſs (*Bot. Arr.*). All the reſt of the plant is, when bruiſed, abominably fœtid.

Limbarda crithmoides.

INULA crithmoides.

Samphire-leaved Fleabane.

SYNGENESIA Polygamia ſuperflua.

GEN. CHAR. *Receptacle* naked. *Seed-down* ſimple. *Antheræ* terminated by two briſtles at the baſe.

SPEC. CHAR. Leaves linear, fleſhy, generally three-pointed.

SYN. Inula crithmoides. *Linn. Sp. Pl.* 1240. *Hudſ. Fl. An.* 369. I. crithmifolia. *With. Bot. Arr.* 024. After maritimus flavus, Crithmum chryſanthemum dictus. *Raii Syn.* 174.

THIS is one of thoſe maritime plants which prefer a muddy ſoil, and is therefore not common. The Reverend Mr. Baker favoured us with this ſpecimen from Portland iſland, near the light-houſes. It flowers in Auguſt.

The root is perennial, creeping, and its long fibres run down deep into the mud. Leaves alternate, ſmooth, very ſucculent, and ſalt to the taſte; the lowermoſt blunt and entire; the others generally having a tooth on each ſide the tip, though many of the upper leaves are often quite entire. The flower-ſtalks, clothed with narrow briſtly bracteæ, and ſwelling upwards, terminate the branches; and each bears a ſolitary erect flower, of a beautiful appearance, having yellow rays and an orange diſk. Mr. Woodward well obſerves that the down of the ſeed is finely dentated. Indeed that part is ſcarcely quite *ſimple* in any flower, only in ſome genera the teeth are much longer than in others, ſo that the down becomes compound or plumoſe.

We do not know that this plant is applied to any uſe. It probably would afford an alkaline ſalt, like moſt other ſucculent ſea plants. It is remarkable that ſuch vegetables generally retain their ſalt taſte, even when cultivated far from the ſea.

Monotropa Hypopitys.

MONOTROPA hypopithys.

Yellow Bird's-neſt.

DECANDRIA Monogynia.

GEN. CHAR. *Calyx* none. *Petals* ten; the five outermoſt hollowed at the baſe, and producing honey. *Capſule* five-valved. *Theſe numbers reſpect the terminal flower only.*

SPEC. CHAR. Lateral flowers with ſix or eight ſtamina, the terminal one with ten.

SYN. Monotropa hypopithys. *Linn. Sp. Pl.* 555. *Huſſ. Fl. An.* 175. *With. Bot. Arr.* 424.
Hypopithys lutea. *Raii Syn.* 317.

BEECH and Fir woods in the midland counties of England produce this ſingular vegetable in abundance, flowering in June. Mr. Wagſtaff communicated our preſent ſpecimen, gathered by Mrs. Kett of Seething, in a pine grove at Stoke near Norwich, in which ſpot the Monotropa was diſcovered in 1782, and never before in that county.

The root is paraſitical, fibrous, and very ſlender. Stem thick and fleſhy, covered, eſpecially in the lower part, with ſcattered ſcales, which ſupply the place of leaves. Every part, as well as the flowers, is of a pale ſtraw-colour, turning browniſh when arrived at maturity, and then acquiring a fragrant ſmell, generally compared to primroſe roots, but rather reſembling thoſe flowers.

The terminal flower, from which Linnæus, in conformity to his own principles, takes his generic and claſſical characters, is larger than the reſt, and has pretty conſtantly ten ſtamina, with other parts in proportion. The lateral ones have from ſix to eight. The corolla is irregular, and deciduous; the ſtamina more permanent.

Pinguicula vulgaris.

PINGUICULA vulgaris.

Common Butter-wort.

DIANDRIA Monogynia.

GEN. CHAR. *Corolla* ringent, ſpurred. *Calyx* two-lipped, with five ſegments. *Capſule* of one cell.

SPEC. CHAR. Spur cylindrical, and as long as the petal.

SYN. Pinguicula vulgaris. *Linn. Sp. Pl.* 25. *Hudſ. Fl. An.* 8. *With. Bot. Arr.* 16. *Relh. Cant.* 8. P. Geſneri. *Raii Syn.* * 281.

ON bogs in the northern counties abundantly, alſo in Norfolk and other parts of England more ſparingly. It is perennial, and flowers in the early part of ſummer. We are obliged for this ſpecimen to Mr. E. Robſon of Darlington, a very aſſiduous and accurate botaniſt.

The leaves are remarkably glutinous on their upper ſide, and afford a good example of an involuted margin. The ſtructure of the ſtigma, and its cloſe application to the ſtamina in this genus, are very remarkable.

Butterwort is accuſed of cauſing the rot in ſheep; but Dr. Withering aſſures us no cattle whatever will feed upon it.

"The huſbandmen's wives of Yorkſhire do uſe to anoint "the dugs of their kine with the fat and oilous juyce of the "herbe butterwort, when they are bitten with any venomous "worme, or chapped, rifted and hurt by any other meanes"— as Maſter Gerarde teſtifieth.

OPHRYS monorchis.

Muſk Orchis.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* conſiſting of a lip only, ſlightly carinated at the back.

SPEC. CHAR. Bulb globoſe. Stalk naked. Lip of the nectary three-cleft, as well as the inner petals.

SYN. Ophrys Monorchis. *Linn. Sp. Pl.* 1342. *Hudſ. Fl. An.* 390. *With. Bot. Arr.* 990. *Relh. Cant.* 338.

Orchis odorata moſchata ſive Monorchis. *Raii Syn.* 378.

GROWS in dry chalky paſtures. We have received it from Kent by favour of Mr. Jacob Rayer, and from the neighbourhood of Bury gathered by W. Matthew, Eſq. The laſt-mentioned gentleman ſuſpects the radical leaves do not appear till within fifteen or twenty days of its flowering, which happens early in July.

This ſpecies is remarkable for having apparently but one bulb, whence the name *monorchis*. The bulb for the following year being formed at the end of one of the radical fibres, and making but ſmall progreſs till the flowering of its parent root is over, has generally eſcaped notice.

The flowers have a muſky honey-like ſmell. It is one of the leaſt ſpecious of its tribe, and may eaſily be overlooked.

In this plant the nectary is a little gibbous at the back part, ſo as ſomewhat to approach the character of Satyrium; nor is its habit far remote from Satyrium albidum and repens.

2
1
2
3
1

MALAXIS paludosa.

Marsh Tway-blade.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* of one hollow, heart-shaped, erect leaf, embracing the organs of fructification. *Corolla* reversed.

SPEC. CHAR. Stalk pentagonal. Leaves several, spatulate, rough at the tip.

SYN. Malaxis paludosa. *Swartz, Stockholm Transf. for* 1789, *p.* 127. *t.* 6. *f.* 2.

Ophrys paludosa. *Linn. Sp. Pl.* 1341. *Hudf. Fl. An.* 389. *With. Bot. Arr.* 989. *Relh. Cant.* 337. *Rose's Elem. (App.)* 450. *t.* 2. *f.* 3.

Orchis minima bulbosa. *Raii Syn.* 378.

A NATIVE of turfy bogs on the north side of Norwich, and in some other parts of England; communicated from the neighbourhood of Potton, Bedfordshire, by the Rev. Mr. Charles Abbot of Bedford. It flowers in July, and is the smallest British plant of this tribe.

However averse to unnecessary innovation, it is impossible to refuse our assent to the establishment of this genus as characterised by Dr. Swartz; happy would it be if every genus in Orchideæ were as clear. Yet it appears that able botanist has not paid due attention to the corolla being reversed *(resupinata)*; the odd petal (of the three external ones) being the lowermost (1), which is what has hitherto been erroneously called the lip. The most striking character of Malaxis consists therefore in the two erect petals at the top (2) instead of the solitary one of all other Orchideæ, at least the European ones. The nectary (3) moreover points upward, and embraces the stamina and style. No. 4 represents the stamina and their cover separated, and much more magnified than the other parts.

To this genus certainly belongs Ophrys monophyllos *Linn.* but surely Dr. Swartz is mistaken in referring to it also O. lilifolia and Loeselii (see our tab. 47), which resemble it in habit only.

The disputed synonym in Ray's Synopsis 381. No. 3, and Pluk. Phyt. t. 247. f. 2. Ophrys palustris of Hudson's first edition, has certainly nothing to do with our plant. May it not be O. Loeselii? See *Bot. Arr.* 989, 990.

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